


Sex disparities in the effect of statins on lipid parameters

The PharmLines Initiative

Nicholas B. Hunt, MSc^{a,b}, Johanna E. Emmens, MD, PhD^c, Sylvi Irawati, PhD^{a,d,e,*} , Stijn de Vos, PhD^a, Jens H.J. Bos, BSc^a, Bob Wilffert, PhD^{a,f}, Eelko Hak, PhD^a, Rudolf A. de Boer, MD, PhD^c

Abstract

Real-world evidence on a potential statin effect modification by sex is inconclusive, especially for the primary prevention of cardiovascular disease (CVD). We aimed to quantify the differences in the effect of statins on lipid parameters between men and women.

The PharmLines Initiative linked the Lifelines Cohort Study and the IADB.nl prescription database. This database covers a representative population from the Netherlands. We selected participants aged ≥ 40 years at the index date: the date of the first prescription of any statin monotherapy in the study period 2006 to 2017. Multivariate regression modeling was used to compare the difference of the mean percentage change of lipid parameters (% mean difference [MD]) from baseline to follow-up measurement between the sexes.

Out of 5366 statin users from approximately 50,000 participants available in the final linked database, 685 were statin initiators. At baseline, women had significantly higher levels of mean total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C), and high-density lipoprotein cholesterol (HDL-C) than men (all P values $< .01$). At follow-up, women had a significantly higher mean percentage change of HDL-C compared to men (adjusted % MD 5.59, 95% confidence interval [CI] 2.42-8.75, $P < .01$). There was no significant sex difference in other parameters, nor in the proportion of men and women who achieved LDL-C ≤ 2.5 mmol/L.

Statins appear to have a greater effect on increasing HDL-C levels in women than men while showing similar effect on other lipid parameters in both sexes. Men should not be treated differently than women.

Abbreviations: CI = confidence interval, CVD = cardiovascular disease, HDL-C = high-density lipoprotein cholesterol, LDL-C = low-density lipoprotein cholesterol, MD = mean difference, TC = total cholesterol.

Keywords: drug prescriptions, lipids, medical record linkage, pharmacoepidemiology, sex, statins, treatment outcome

Editor: Ahmed Salah Naser.

The Lifelines Biobank initiative has been made possible by funds from FES (Fonds Economische Structuurversterking), SNN (Samenwerkingsverband Noord Nederland) and REP (Ruimtelijk Economisch Programma) and The IADB.nl is funded by the University of Groningen.

The Indonesia Endowment Fund for Education (Lembaga Pengelola Dana Pendidikan, LPDP) of the Ministry of Finance of the Republic of Indonesia funded SI's PhD program and had no role in all aspects of the study conduct or publication. All other authors received no financial support for the research, authorship, and/or publication of this article.

De-identified individual participant data that underlie the results reported in this study (text, tables, figures, appendices) can be made available upon request immediately following article publication for researchers whose proposed use of the data has been approved by an independent review committee ("learned intermediary") identified for this purpose. Proposal should be directed to: e.hak@rug.nl.

The authors have no conflicts of interest to disclose.

Supplemental Digital Content is available for this article.

The data that support the findings of this study are available from a third party, but restrictions apply to the availability of these data, which were used under license for the current study, and so are not publicly available. Data are available from the authors upon reasonable request and with permission of the third party.

^a Groningen Research Institute of Pharmacy, PharmacoTherapy, -Epidemiology & -Economics, University of Groningen, Groningen, The Netherlands, ^b Division of Pharmacoepidemiology & Clinical Pharmacology, Utrecht Institute for Pharmaceutical Sciences (UIPS), Utrecht University, Utrecht, The Netherlands, ^c Department of Cardiology, University of Groningen, University Medical Center Groningen, Groningen, The Netherlands, ^d Centre for Medicines Information and Pharmaceutical Care, Faculty of Pharmacy, Universitas Surabaya, Surabaya, Indonesia, ^e Department of Clinical and Community Pharmacy, Faculty of Pharmacy, Universitas Surabaya, Surabaya, Indonesia, ^f University of Groningen, Department of Clinical Pharmacy & Pharmacology, University Medical Center Groningen, Groningen, The Netherlands.

* Correspondence: Sylvi Irawati, University of Groningen, Groningen Research Institute of Pharmacy, A. Deusinglaan 1, 9713 AV, Groningen, The Netherlands (e-mail: syvi.irawati.2010@gmail.com).

Copyright © 2022 the Author(s). Published by Wolters Kluwer Health, Inc.

This is an open access article distributed under the Creative Commons Attribution License 4.0 (CCBY), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

How to cite this article: Hunt NB, Emmens JE, Irawati S, de Vos S, Bos JHJ, Wilffert B, Hak E, de Boer RA. Sex disparities in the effect of statins on lipid parameters: the PharmLines Initiative. *Medicine* 2022;101:2(e28394).

Received: 30 November 2020 / Received in final form: 29 November 2021 / Accepted: 2 December 2021

<http://dx.doi.org/10.1097/MD.00000000000028394>

1. Introduction

In Europe, cardiovascular disease (CVD) contributes to 40% and 49% of all deaths in men and women, respectively. It burdens 79% of European countries with 40 to 150 disability-adjusted life years per 1000 citizens.^[1,2] Statins are the primary lipid-lowering agents recommended by guidelines from the American Heart Association/American College of Cardiology, the European Society of Cardiology, and the Dutch College of General Practitioners to prevent CVD.^[3–6] The clinical benefit of statins is mainly due to its ability to reduce low-density lipoprotein cholesterol (LDL-C) concentration. In general, statins should be prescribed for individuals with a 10-year moderate to high risk of developing CVD (primary prevention) based on a total cardiovascular (CV) risk assessment as well as LDL-C concentration, and individuals with established CVD (secondary prevention). These guidelines present different scoring systems to assess an individual's total CV risk and provide a separate scoring chart for men and women.^[3,5–7] Despite this, there are no sex-specific guidelines for statin therapy.

Two meta-analyses of randomised controlled trials of statins vs control (placebo/less-intensive dose) showed no sex disparities in the effect of statins on reducing major CV events.^[8,9] One review showed the difference in the effects of statins for primary and secondary CVD prevention between sexes to be inconsistent.^[10] When it comes to sex disparities in the effect of statins on lipid parameters, meta-analyses show disagreement. One shows that the mean absolute reduction of LDL-C after 1-year of using statin is significantly greater in men than in women. However, for total cholesterol (TC), high-density lipoprotein cholesterol (HDL-C) and triglycerides (TG), this effect was similar between sexes.^[8] In the other meta-analysis, women experience a more significant reduction in LDL-C, but a less significant increase in HDL-C, than men.^[11]

Studies using real-world data mostly detect sex disparities in CV risk assessment, statin administration, adherence, and adverse effects.^[10,12–15] They offer limited explanation of the sex disparities in lipid modification, especially for primary prevention.^[10,16] We aimed to investigate disparities in the effectiveness of statins on important lipid parameters between women and men who were first time users of statins for both the primary and secondary prevention of CVD in a real-world setting.

2. Methods

We report our study according to the REporting of studies Conducted using Observational Routinely-collected health Data statement for pharmacoepidemiology.^[17]

2.1. Study design and setting

We conducted an inception cohort study using the PharmLines Initiative database that linking data from the Lifelines Cohort Study and the IADB.nl prescription database. The overall design of the Lifelines Cohort Study, the IADB.nl prescription database, and the Pharmlines Initiative have been described elsewhere.^[18–22]

Lifelines is a population-based database established to investigate the contribution of socio-demographic, physical, psychological, biomedical, and behavioural factors to the development of disease and health of general population living in the North of the Netherlands.^[18,20,22] IADB.nl is a population-

based database that has been prospectively collecting prescription data from community pharmacies in the Netherlands since 1996. As in 2017, the coverage of the IADB.nl is around 700,000 participants from approximately 70 community pharmacies.^[19,21]

IADB.nl supplies full prescription data regardless of health insurance status. It has been extensively used for research and has been found to represent the whole Netherlands in terms of age, sex, and prescription rates. The information stored in the IADB.nl relevant to this study such as the date of birth and sex of each participant, the date of medication being dispensed, the quantity of medication, the dose of medication (in terms of defined daily dose, DDD), and the number of days of valid prescription. Each medication is registered according to the Anatomical Therapeutic Chemical code. The database however records neither medications bought over the counter by the participants nor medications dispensed in the hospital. To maintain confidentiality, a unique anonymous identifier is given to every participant and used to track each participant's prescription record throughout the database.^[19,21]

The Lifelines study protocol is approved by the medical ethical committee of the University Medical Center Groningen and all Lifelines participants have each signed an informed consent stating that they approve the use of their (anonymized) data and material for scientific purposes. Data of the IADB.nl is collected according to the national and European guidelines on privacy with human data valid at the time of collection.

2.2. Database linkage

Briefly, the linking process was the responsibility of the trusted third-party, the Netherlands' Central Agency for Statistics (Centraal Bureau voor de Statistiek). The linkage was performed at the individual level based on combined information of 4-digit postal code, sex, and date of birth. A new unique identifier, which could not be tracked back to identifier in the individual databases, then was assigned to each participant.^[21]

2.3. Study participants, compared groups, outcomes, and follow-up

We included participants ≥ 40 years of age at the index date, defined as the date of the first prescription of any statin monotherapy (Anatomical Therapeutic Chemical code C10AA) during the study period (2006–2017). Statin monotherapy was determined by an absence of other lipid-lowering agents at index date. Participants were only included if they were present in the database for at least 365 days before the first prescription of any statins and had both the baseline and follow-up visit recorded in the Lifelines database. Participants were excluded if they had used statins for less than 90 days (Fig. 1).

We further classified the statin initiators into 2 groups: initiators for primary prevention and initiators for secondary prevention of CVD. For the primary prevention group, participants were excluded if they had previously been diagnosed with CVD, as defined by the algorithm developed by van der Ende et al,^[18] including the diagnoses of myocardial infarction, cerebrovascular accident, transient ischemic attack, aortic aneurysm, or peripheral artery disease. Men were the reference group for all outcome comparisons.

Our primary outcome was the sex difference in the mean percentage change (% mean difference, %MD) of TC, LDL-C,

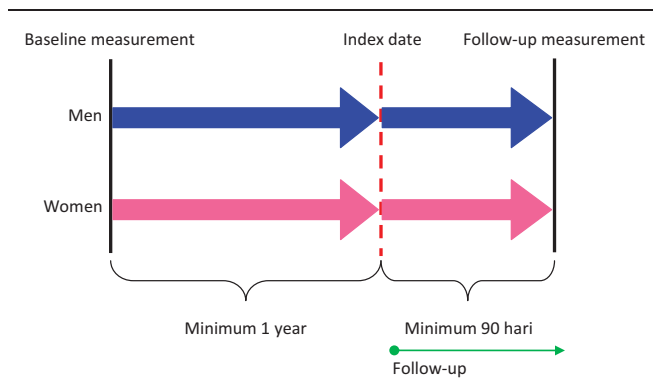


Figure 1. Design of the retrospective inception cohort study.

HDL-C, and TG level from baseline to follow-up and in the achievement of LDL-C treatment target (≤ 2.5 mmol/L), as recommended by the 2011 Dutch guidelines, for the all-statin initiator group,^[4,23] As described previously, Roche Modular P automated analyzer (Mannheim, Germany) was used to measure lipid parameters. The plasma cholesterol used in clinical chemistry analyses was obtained from blood veins after an overnight fast. TC, LDL-C, and HDL-C were measured with direct enzymatic colorimetric assays whereas TG was measured with an assay based on glycerol phosphate oxidase-peroxidase aminophenazone. All assays were standardized. Friedewald formula was used to calculate LDL-C.^[24]

As secondary outcomes, we measured the sex differences in the effect of statins separately for primary and secondary prevention and in participants' adherence to statins. Adherence was calculated as the proportion days covered where the number of days covered with statin prescriptions were divided by the number of days between index date and follow-up multiplied by 100. Participants were classified as adherent when proportion days covered was $\geq 80\%$.^[25]

2.4. Statistical analyses

Proportions for categorical variables, mean \pm standard deviation for normally distributed continuous variables, and median and interquartile range for skewed continuous variables are reported. Chi-square tests, independent sample *t* tests, and Mann–Whitney *U* tests were used to compare categorical variables, normally-distributed continuous variables, and skewed variables, respectively. The distribution of variables were determined using P-P, Q-Q plots and stem and leaf plots, where outliers were identified and subsequently removed. A complete case analysis was performed to account for any sporadically missing data in the confounder and outcome variables. A potential for collinearity between dependent and independent variables were examined before the linear regression analyses were performed. We looked at the Pearson correlation score (*r*) and the variance inflation factor (VIF) to detect multicollinearity. The presence of multicollinearity was suggested when $r > 0.90$ and VIF score > 10 .^[26]

We report %MD \pm standard errors from linear regression, odds ratios from logistic regression, and their 95% confidence intervals (95% CI). Statistically significant co-variables ($P < .05$) in univariate analysis were included in multivariate linear and logistic regression analyses. IBM Statistical Package for Social Sciences Statistics 22 (IBM Corp., Armonk, N.Y., USA) was used to perform all statistical analyses.

3. Indirect patient and public involvement

Patients and public were involved in the development of the Lifelines database. Patient representatives were involved in the updating of the database.

4. Results

Out of around 50,000 participants available in the linked database, 5366 were statin users. Of these, 571 participants were first time statin users in the study period. Among these participants, 282 (49.4%) were men and 464 (81.3%) had initiated statins for primary prevention (Fig. 2). The year of the

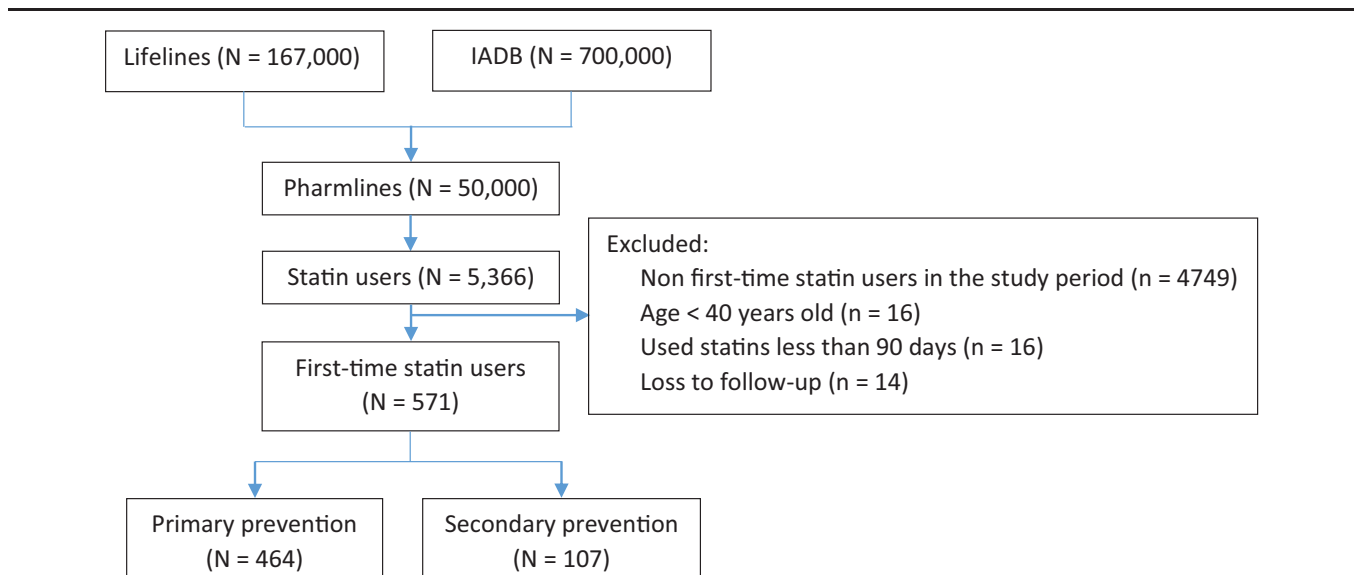


Figure 2. Flow diagram of the selection of participants.

Table 1**Baseline characteristics of the all statin initiator group.**

Variables (unit)	Men (N = 282) Mean ± SD	Women (N = 289) Mean ± SD	P value
Age (yrs)	53 (48, 64) [*]	57 (49, 66) [*]	.072
BMI (kg/m ²)	27.44 ± 3.47	27.74 ± 4.85	.400
SBP (mm Hg)	137.70 ± 16.01	131.87 ± 18.18	<.001
DBP (mm Hg)	81.25 ± 9.94	75.14 ± 9.09	<.001
Baseline lipid parameters			
TC (mmol/L)	5.96 ± 1.12	6.36 ± 1.17	<.001
LDL-C (mmol/L)	4.08 ± 1.02	4.33 ± 1.09	.004
HDL-C (mmol/L)	1.26 ± 0.31	1.50 ± 0.42	<.001
TG (mmol/L)	1.93 ± 1.72	1.69 ± 1.11	.055
Starting dose of statins (mg) [†]			
Simvastatin	34.14 ± 9.59 (n = 258)	32.50 ± 10.81 (n = 260)	.067
Atorvastatin	23.33 ± 11.13 (n = 15)	30 ± 12.40 (n = 14)	.139
Duration of follow-up (d)	844.50 (508.5, 1209) [*]	978.00 (585, 1263) [*]	.017
Cardiovascular risk factors	n (%)	n (%)	
Current smokers	42 (14.89)	42 (14.53)	.918
Hypertension	94 (33.33)	118 (40.83)	.032
Hypercholesterolemia	81 (28.72)	91 (31.49)	.255
Diabetes mellitus	11 (3.90)	15 (5.19)	.312

BMI = body mass index, DBP = diastolic blood pressure, HDL-C = high-density-lipoprotein cholesterol, LDL-C = low-density lipoprotein cholesterol, N = number of participants included in the analysis, n = number of participants with the displayed variable, SBP = systolic blood pressure, SD = standard deviation, TC = total cholesterol, TG = triglycerides.

^{*} Median (25th, 75th percentiles).

[†] Pravastatin and rosuvastatin were not included in the analysis because they were used by less than 10 participants in 1 or both groups.

Lifelines baseline appointments ranged from 2006 to 2013 and the Lifelines follow-up appointments ranged from 2014 to 2017. Between these 2 periods, the time of statin initiations ranged from May 11, 2006 to August 4, 2016. The overall mean duration between the baseline measurement date and the index date was 710.66 ± 638 days. The overall mean duration of follow-up was 928.97 ± 484.70 days. Simvastatin was used the most by both men (91.5%) and women (90.0%).

Compared to men, women were significantly older, and had higher levels of most lipid parameters including TC, LDL-C, and HDL-C at baseline (Table 1). Men had significantly higher mean systolic and diastolic blood pressure. There were no differences in mean body mass index, smoking status, the presence of diabetes and hypercholesterolemia, and the mean starting dose of statins between the sexes at baseline. However, although the mean

duration of follow-up between the sexes was not significantly different, the median of follow-up in women was significantly longer than in men.

4.1. Sex disparities in the effect of statins on lipid parameters

After adjustments for potential confounders, in both men and women separately, statins significantly decreased the levels of TC and LDL-C, and increased the level of HDL-C from baseline to follow-up (Table 2). However, there was a more significantly improved HDL-C level in women compared to men in the adjusted pairwise comparison (adjusted MD 5.64%, 95% CI 2.36-8.92, $P < .01$), the differences in the mean percentage change of TC, LDL-C, and TG from baseline between the sexes were not statistically significant. The proportion of men and women who attained the LDL-C treatment target was similar, only 37% for both groups. The adherent rates were moderate (73.1% in men and 72.0% in women) and also similar between the sexes (Table 3).

In line with the all-statin initiator group results, statin use in the primary and secondary prevention subgroups, were found to increase the HDL-C level to a significantly greater extent in women than in men (all P values $< .05$; primary prevention: adjusted MD 4.82%, 95% CI 1.10-8.54; secondary prevention: adjusted MD 8.79%, 95% CI 1.66, 15.93; Table S1, Supplemental Digital Content, <http://links.lww.com/MD2/A798>). There were no significant differences between the sexes in the mean percentage change from baseline for other lipid parameters, the achievement LDL-C treatment goal, or adherence to statin therapy both in subgroups of primary and secondary prevention (Table S2, Supplemental Digital Content, <http://links.lww.com/MD2/A799> and Table S3, Supplemental Digital Content, <http://links.lww.com/MD2/A800>).

5. Discussion

In all statin users, we found a significantly greater mean percentage increase in HDL-C concentration after initiating statin therapy in women compared to men and no statistically

Table 2**Comparison of the effect of statins between the sexes on lipid parameters in the all statin initiator group.**

Lipid parameters (mmol/L)	Groups	Unadjusted				Adjusted			
		N	MD ± SE (%)	95% CI	P value	N	MD ± SE (%)	95% CI	P value
TC	Sex difference	543	1.13 ± 1.56	-1.93, 4.18	.470	542	-0.43 ± 1.56	-2.63, 3.48	.784 [*]
	Men	272	-20.99 ± 1.02	-23.15, -18.83		272	-21.80 ± 1.05	-23.85, -19.74	
	Women	271	-22.11 ± 1.17	-24.40, 19.82		270	-21.37 ± 1.05	-23.43, -19.31	
LDL-C	Sex difference	543	2.36 ± 2.34	-2.24, 6.97	.315	542	-0.61 ± 2.36	-5.25, 4.03	.797 [†]
	Men	272	-26.05 ± 1.44	-28.87, -23.23		272	-27.58 ± 1.59	-30.70, -24.46	
	Women	271	-28.41 ± 1.85	-32.04, -24.78		270	-26.97 ± 1.59	-30.10, -23.84	
HDL-C	Sex difference	543	-2.14 ± 1.56	-5.21, 0.93	.171	542	-5.64 ± 1.67	-8.92, -2.36	.001 [†]
	Men	272	5.74 ± 1.03	3.32, 7.35		272	3.59 ± 1.12	1.38, 5.79	
	Women	271	7.47 ± 1.18	5.17, 9.77		270	9.23 ± 1.13	7.02, 11.44	
TG	Sex difference	543	-8.32 ± 4.00	-16.18, -0.45	.038	542	7.60 ± 4.24	0.73, 15.92	.073 [†]
	Men	272	-2.56 ± 3.38	-9.19, 4.07		272	-2.89 ± 2.85	-8.48, 2.70	
	Women	271	-10.87 ± 2.14	-15.06, 6.68		270	-10.49 ± 2.86	-16.10, 4.88	

CI = confidence interval, DBP = diastolic blood pressure, HDL-C = high-density lipoprotein cholesterol, LDL-C = low-density lipoprotein cholesterol, MD = mean difference, N = number of participants included in the analysis, n = number of participants with the displayed lipid parameter, SBP = systolic blood pressure, SE = standard error, TC = total cholesterol, TG = triglycerides.

^{*} Adjusted for age, SBP, DBP, TC, HDL-C, TG, and starting dose of simvastatin at baseline.

[†] Adjusted for age, SBP, DBP, LDL-C, HDL-C, TG, and starting dose of simvastatin at baseline.

Table 3**Comparison of the effect of statins on the achievement of treatment goal and adherence to statins between the sexes in the all statin initiator group.**

Outcomes	Men (n/N, %)	Women (n/N, %)	OR (95% CI; P value)
Achieving treatment goal (LDL-C \leq 2.5 mmol/L)	105/282, 37.2%	101/289, 37.4%	Crude: 1.01 (0.72, 1.41; .970) Adjusted: 1.22 (0.82, 1.82; .322)*
Adherence to statins (PDC \geq 80%)	206/282, 73.1%	208/289, 72.0%	Crude: 0.96 (0.66, 1.39; .830) Adjusted: 0.96 (0.64, 1.46; .854)*

CI = confidence interval, DBP = diastolic blood pressure, HDL-C = high-density lipoprotein cholesterol, LDL-C = low-density lipoprotein cholesterol, N = number of participants included in the analysis, n = number of participants with the outcome variable, OR = odds ratio, PDC = proportion days covered, SBP = systolic blood pressure, TG = triglycerides.

* Adjusted for age, SBP, DBP, LDL-C, HDL-C, TG, and starting dose of simvastatin at baseline.

significant differences between the sexes regarding the other lipid parameters. Remarkably, the proportion of men and women who achieved the LDL-C treatment goal was below 40% without statistically significant differences between the sexes. In the primary prevention group the level of attainment of LDL-C treatment target was even lower than 35% for both sexes. However, in the secondary prevention group, the proportion of men and women who reached the treatment target was above 45%, although the differences were not significant between the sexes. Despite the low rate of achievement of the treatment target, the level of adherence to statins was 70% in both sexes.

Our findings contradict results from the meta-analysis of clinical trials by Karlson et al^[11] where statins led to a significantly greater increase of 0.5% in the HDL-C mean percentage from baseline in men compared to women. Additionally, this meta-analysis found a significantly greater decrease of 2.1% in the LDL-C mean percentage from baseline in women compared to men.^[11] On the other hand, in agreement with our findings, the Cholesterol Treatment Trialists' Collaboration's meta analysis demonstrated similar trend of statin effects on the change in mean percentages of TC, LDL-C, and HDL-C from baseline to 1-year follow up between the sexes.^[8]

The more significant effect of statins to raise HDL-C in women than in men despite the small sample size in our study is an interesting finding. HDL-C response to statins has been investigated in an individual participant meta-analysis of clinical trials in the VOYAGER database.^[11,27] There was a significant low-to-moderate correlation between the change in HDL-C percentage and the change in the TG percentage, both from baseline to follow-up, induced by statin therapy. The greater the reduction in TG percentage, the greater the increase in HDL-C percentage. However, this study did not differentiate whether there was a difference of this phenomenon between men and women.^[27] In our study there was a trend toward greater decrease in TG level in women compared to men, though statistically nonsignificant, was accompanied by a greater increase of HDL-C level in women compared to men. The underlying mechanism of this relationship is unclear.

Low baseline HDL-C and high baseline TG were found as independent predictors of a higher percentage change of HDL-C from baseline for atorvastatin, rosuvastatin, and simvastatin.^[27,28] Women in our study had a higher baseline HDL-C and a lower baseline TG compared to men, yet they still demonstrated a greater HDL-C response to statins. The extent of HDL-C elevation also depends on the type and dose of statins.^[27-30] Rosuvastatin (5-40 mg) led to 5.5% to 7.9% increase of HDL-C concentration in a direct dose-dependent relationship whereas atorvastatin (10-80 mg) changed HDL-C level in an inverse dose-

dependent relationship (4.5% at the 10 mg to 2.3% at the 80 mg). Simvastatin (10-80 mg) raised HDL-C by 4.2% to 5.3% in a similar fashion to rosuvastatin.^[27]

HDL-C response may also depend on the type of patients. In Chinese diabetic patients, atorvastatin, younger age (<65 years), body mass index \geq 24 kg/m² and women with baseline HDL-C >1.29 mmol/L or men with baseline HDL-C >1.03 mmol/L predicted a decrease of HDL-C level after 1-year of statin therapy. Severe atherogenic dyslipidemia (baseline TG \geq 2.30 mmol/L and HDL-C \leq 0.88 mmol/L), but not women with TG >1.69 mmol/L and HDL-C \leq 1.29 mmol/L or men with HDL-C \leq 1.03 mmol/L, were protective factors against HDL-C decrease in these patients.^[29] In our study, other factors might oppose the HDL-C elevating effect of statins in men.

The level of adherence to statin therapy in men (73.1%) and women (72.0%) in our study is considered moderate and similar whereas the proportion of participants who achieved the LDL-C treatment goal is below 40%. These results are consistent with other studies. A recent systematic review (2019) of 16 published studies investigating predictors of statin adherence found that the level of adherence to statin therapy for primary and/or secondary prevention was suboptimal (range: 41.0%-82.7%).^[31] One study using the PHARMO, a general practitioner database in the Netherlands, showed that from all population treated with statins on average 1 daily defined dose, 45% did not reached the LDL-c treatment target according to the guidelines. Our study found a lower LDL-C treatment goal attainment although the actual filled-prescription of the drug by the patients could be assessed in the PharmLines database whereas it was not available in the PHARMO database.^[32]

Our study provides evidence on the possible differences in the effectiveness of statins between men and women in a real-world setting. Which is especially important for primary prevention, where the current evidence is lacking. The whole population of the Netherlands and the adult population of the North of the Netherlands are each well represented by the data from IADB.nl and Lifelines, respectively.^[19,33] The recruitment strategy means the selection bias is low that the results obtained from Lifelines can be applied to the general population.^[33]

Our study might lack statistical power to detect smaller differences between sexes due to a relatively small sample size included in the analysis. Only 1% of participants in the final linked database initiated statins between their 2 Lifelines appointments and performing a complete-case analysis contributed to a low precision, notably in subgroups. A lack of information on in-hospital dispensed medications in the IADB database might cause a small number of participants in the secondary prevention group. As Lifelines follow-up is still ongoing and the IADB is ever-evolving and expanding, repeating

this study in the future should yield results with higher statistical power.

There still remains uncertainty surrounding the potential sex differences in the effectiveness of statins. The literature presents a varied picture, but here we find the effects of statins on TC, LDL-C, and TG between the sexes are similar whereas HDL-C response appears to be higher in women than men. This difference could be due to other factors than statin type or dose or adherence which oppose the HDL-C elevating effect of statins in men. The degree to which an increase of HDL-C level corresponds to a reduction in CV major events needs further investigation. In all, the results are compatible with the fact that men should not be treated different with statins than women.

Acknowledgments

The authors wish to acknowledge the services of the Lifelines Cohort Study, the contributing research centres delivering data to Lifelines, and all the study participants, and the participating IADB.nl pharmacies for kindly providing their data for research.

Author contributions

NBH, JEE, EH, and RadB contributed to the conception or design of the work. SdV contributed to the statistical analysis. All authors contributed to the acquisition, analysis, or interpretation of the data. NBH, JEE and SI drafted the manuscript. All authors critically revised the manuscript, gave final approval, and agreed to be accountable for all aspects of work ensuring integrity and accuracy.

Conceptualization: Nicholas B. Hunt, Johanna E. Emmens, Eelko Hak, Rudolf A. de Boer.

Data curation: Nicholas B. Hunt, Sylvi Irawati.

Formal analysis: Nicholas B. Hunt, Johanna E. Emmens, Sylvi Irawati, Stijn de Vos, Eelko Hak, Rudolf A. de Boer.

Methodology: Nicholas B. Hunt, Johanna E. Emmens, Eelko Hak, Rudolf A. de Boer.

Project administration: Nicholas B. Hunt, Johanna E. Emmens, Eelko Hak.

Resources: Jens H.J. Bos, Bob Wilffert, Eelko Hak, Rudolf A. de Boer.

Software: Jens H.J. Bos.

Supervision: Bob Wilffert, Eelko Hak, Rudolf A. de Boer.

Validation: Nicholas B. Hunt, Johanna E. Emmens, Sylvi Irawati, Jens H.J. Bos, Eelko Hak, Rudolf A. de Boer.

Writing – original draft: Nicholas B. Hunt.

Writing – review & editing: Nicholas B. Hunt, Johanna E. Emmens, Sylvi Irawati, Stijn de Vos, Jens H.J. Bos, Bob Wilffert, Eelko Hak, Rudolf A. de Boer.

References

- [1] Joseph P, Leong D, McKee M, et al. Reducing the global burden of cardiovascular disease, part 1: the epidemiology and risk factors. *Circ Res* 2017;121:677–94.
- [2] Townsend N, Wilson L, Bhatnagar P, Wickramasinghe K, Rayner M, Nichols M. Cardiovascular disease in Europe: epidemiological update 2016. *Eur Heart J* 2016;37:3232–45.
- [3] Piepoli MF, Hoes AW, Agewall S, et al. 2016 European guidelines on cardiovascular disease prevention in clinical practice. *Eur Heart J* 2016;37:2315–81.
- [4] Nederlands Huisartsen Genootschap. Multidisciplinaire richtlijn Cardiovasculair risicomanagement, herziening 2011. Utrecht: Nederlands Huisartsen Genootschap; 2011.
- [5] Grundy SM, Stone NJ, Bailey AL, et al. 2018 AHA/ACC/AACVPR/AAPA/ABC/ACPM/ADA/AGS/APHA/ASPC/NLA/PCNA guideline on the management of blood cholesterol: executive summary: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *Circulation* 2019;139:e1046–81.
- [6] Catapano AL, Graham I, De Backer G, et al. 2016 ESC/EAS guidelines for the management of dyslipidaemias. *Eur Heart J* 2016;37:2999–3058.
- [7] American Heart Association/American College of Cardiology. 2018 Prevention guidelines tool CV risk calculator. Published 2018. Available at: <http://static.heart.org/riskcalc/app/index.html#!/baseline-risk>. Accessed October 10, 2019.
- [8] Cholesterol Treatment Trialists' (CTT) Collaboration. Efficacy and safety of LDL-lowering therapy among men and women: meta-analysis of individual data from 174,000 participants in 27 randomised trials. *Lancet* 2015;385:1397–405.
- [9] Kostis WJ, Cheng JQ, Dobrzynski JM, Cabrera J, Kostis JB. Meta-analysis of statin effects in women versus men. *J Am Coll Cardiol* 2012;59:572–82.
- [10] Cangemi R, Romiti GF, Campolongo G, et al. Gender related differences in treatment and response to statins in primary and secondary cardiovascular prevention: the never-ending debate. *Pharmacol Res* 2017;117:148–55.
- [11] Karlson BW, Palmer MK, Nicholls SJ, Barter PJ, Lundman P. Effects of age, gender and statin dose on lipid levels: results from the VOYAGER meta-analysis database. *Atherosclerosis* 2017;265:54–9.
- [12] Hippisley-Cox J, Coupland C. Unintended effects of statins in men and women in England and Wales: population based cohort study using the QResearch database. *BMJ* 2010;340:c2197. doi:10.1136/bmj.c2197.
- [13] Hyun KK, Redfern J, Patel A, et al. Gender inequalities in cardiovascular risk factor assessment and management in primary healthcare. *Heart* 2017;103:492–8.
- [14] Lewey J, Shrank WH, Bowry ADK, Kilabuk E, Brennan TA, Choudhry NK. Gender and racial disparities in adherence to statin therapy: a meta-analysis. *Am Heart J* 2013;165:665–78.e1.
- [15] Zhang H, Plutzky J, Shubina M, Turchin A. Drivers of the sex disparity in statin therapy in patients with coronary artery disease: a cohort study. *PLoS One* 2016;11:e0155228. doi:10.1371/journal.pone.0155228.
- [16] Karp I, Chen S-F, Pilote L. Sex differences in the effectiveness of statins after myocardial infarction. *CMAJ* 2007;176:333–8.
- [17] Langan SM, Schmidt SA, Wing K, et al. The reporting of studies conducted using observational routinely collected health data statement for pharmacoepidemiology (RECORD-PE). *BMJ* 2018;363:k3532. doi:10.1136/bmj.k3532.
- [18] van der Ende MY, Hartman MHT, Hagemeijer Y, et al. The LifeLines Cohort Study: prevalence and treatment of cardiovascular disease and risk factors. *Int J Cardiol* 2017;228:495–500.
- [19] Visser ST, Schuiling-Veninga CC, Bos JH, de Jong-van den Berg LT, Postma M. The population-based prescription database IADB.nl: its development, usefulness in outcomes research and challenges. *Expert Rev Pharmacoecon Outcomes Res* 2013;13:285–92.
- [20] Scholtens S, Smid N, Swertz MA, et al. Cohort profile: LifeLines, a three-generation cohort study and biobank. *Int J Epidemiol* 2015;44:1172–80.
- [21] Sediq R, van der Schans J, Dotinga A, et al. Concordance assessment of self-reported medication use in the Netherlands three-generation Lifelines Cohort Study with the pharmacy database IADB.nl: the PharmLines Initiative. *Clin Epidemiol* 2018;10:981–9.
- [22] Stolk RP, Rosmalen JGM, Postma DS, et al. Universal risk factors for multifactorial diseases: LifeLines: a three-generation population-based study. *Eur J Epidemiol* 2008;23:67–74.
- [23] Wiersma T, Smulders YM, Stehouwer CD, Konings KT, Lanphen J. Samenvatting van de multidisciplinaire richtlijn 'Cardiovasculair risicomanagement' (herziening 2011) [Summary of the multidisciplinary guideline on cardiovascular risk management (revision 2011)]. *Ned Tijdschr Geneesk* 2012;156:A5104.
- [24] Balder JW, de Vries JK, Nolte IM, Lansberg P, Kuivenhoven J, Kamphuisen P. Lipid and lipoprotein reference values from 133,450 Dutch Lifelines participants: age- and gender-specific baseline lipid values and percentiles. *J Clin Lipidol* 2017;11:1055–64.e6.
- [25] Simpson RJ, Mendys P. The effects of adherence and persistence on clinical outcomes in patients treated with statins: a systematic review. *J Clin Lipidol* 2010;4:462–71.
- [26] Hair JF Jr, Black WC, Babin BJ, Anderson RE. *Multivariate Data Analysis*. 7th ed. Upper Saddle River, NJ: Prentice Hall; 2009.
- [27] Barter PJ, Brandrup-Wognsen G, Palmer MK, Nicholls SJ. Effect of statins on HDL-C: a complex process unrelated to changes in LDL-C: analysis of the VOYAGER database. *J Lipid Res* 2010;51:1546–53.

- [28] Davidson MH, Ose L, Frohlich J, et al. Differential effects of simvastatin and atorvastatin on high-density lipoprotein cholesterol and apolipoprotein A-I are consistent across hypercholesterolemic patient subgroups. *Clin Cardiol* 2003;26:509–14.
- [29] Chang Y-H, Lin K-C, Chang D-M, Hsieh C-H, Lee Y-J. Paradoxical negative HDL cholesterol response to atorvastatin and simvastatin treatment in Chinese type 2 diabetic patients. *Rev Diabet Stud* 2013;10:213–22.
- [30] Yamashita S, Tsubakio-Yamamoto K, Ohama T, Nakagawa-Toyama Y, Nishida M. Molecular mechanisms of HDL-cholesterol elevation by statins and its effects on HDL functions. *J Atheroscler Thromb* 2010;17:436–51.
- [31] Deshpande S, Quek RGW, Forbes CA, et al. A systematic review to assess adherence and persistence with statins. *Curr Med Res Opin* 2017;33:769–78.
- [32] Kuiper J, Sanchez R, Houben E, et al. Use of lipid-modifying therapy and LDL-C goal attainment in a high-cardiovascular-risk population in the Netherlands. *Clin Ther* 2017;39:819–27.e1.
- [33] Klijs B, Scholtens S, Mandemakers JJ, Snieder H, Stolk RP, Smidt N. Representativeness of the Lifelines Cohort Study. *PLoS One* 2015;10:e0137203. doi:10.1371/journal.pone.0137203.

Medicine[®]



 Wolters Kluwer

Advertisement

Editorial Board

Click Subject Area for complete listing of board members.

Case Editor

Anatomy and Physiology

Anesthesiology

Breast Cancer

Cardiovascular

Clinical Genetics

Clinical Immunology

Clinical Research Design

Complementary and Alternative Medicine

Critical Care and Emergency Medicine

Dermatology

Diagnostic Medicine and Pathology

Drugs and Devices

Endocrinology

Epidemiology

Gastroenterology and Hepatology

Genetics

Geriatrics

Global Health

Hematology

HIV/AIDS

Immunology

Infectious Diseases

Mental Health

Metabolic Disorders
Nephrology
Neurology
Non-Clinical Medicine
Nutrition
Obstetrics and Gynecology
Oncology
Ophthalmology
Oral Medicine
Otorhinolaryngology
Palpative Care
Pediatrics
Physiotherapy and Rehabilitation
Primary Care
Psychology
Public Health
Pulmonology
Radiology
Rheumatology
Sports and Exercise Medicine
Surgery
Toxicology
Urology
Women's Health

Case Editor

Maya Saranathan

[TOP](#)

Anatomy and Physiology

Barbara Buffoli

University of Brescia
ITALIA

David Burmeister

US Army Institute of Surgical Research
UNITED STATES

Stefano Delli Pizzi

Institute for Advanced Biomedical Technologies
ITALY

Shogo Hayashi

International University of Health
and Welfare School of Medicine
JAPAN

Zelena Dora

Hungarian Academy of Sciences
HUNGARY

Nicoletta Gagliano

University of Milan
ITALY

Nandu Goswami

Medizinische Universitat Graz
AUSTRIA

Xiong Kun

Central South University
CHINA

Jae-Ho Lee

Keimyung University
SOUTH KOREA

Diego Milani

University of Notre Dame Australia
AUSTRALIA

Myung-Geol Pang

Chung Ang University
KOREA, REPUBLIC OF

TOP

Tara Shankar Roy

All India Institute of Medical Sciences New Delhi
INDIA

Francine Smith

University of Calgary
CANADA

Wutian Wu

University of Hong Kong
CHINA

Mugureal Constantin Rusu, "Carol Davila"

University of Medicine and Pharmacy
ROMANIA

Igor V. Pantić

Department of Physiology, Faculty of Medicine
University of Belgrade SERBIA
and University of Haifa, ISRAEL

Masood Sepehrimanesh

University of Louisiana at Lafayette
USA

Elias Manjarrez

Institute of Physiology
Benemerita Universidad Autonoma de Puebla
MEXICO

Santanu De

Department of Biological Sciences
Halmos College of Arts and Sciences
Nova Southeastern University
USA

César Calvo Lobo

Faculty of Nursing, Physiotherapy and Podiatry
Universidad Complutense de Madrid
SPAIN

Anesthesiology

Section Editor:**Somchai Amornyotin**

Siriraj Hospital, Mahidol University
THAILAND

Naila Akhtar

King Edward Medical University
PAKISTAN

Jose Barbosa Neto

Universidade de Sao Paulo
BRAZIL

Somchai Amornyotin

Faculty of Medicine Siriraj Hospital
Mahidol University

Naila Asad

King Edward Medical University
Lahore, PAKISTAN

Tumul Chowdhury

University of Manitoba
CANADA

Pasquale De Negri

IRCCS Centro di Riferimento Oncologico della Basilicata
OECI Clinical Cancer Center
ITALY

Ahmet Eroglu

Karadeniz Technical University
TURKEY

Amaya Fumimasa

Kyoto Prefectural University of Medicine
JAPAN

Helen Gharaei

Milad hospital
IRAN

Kazuo Hanaoka

JR Tokyo General Hospital
JAPAN

Young-Kug Kim

University of Ulsan College of Medicine
KOREA, REPUBLIC OF

Hiroyuki Kinoshita

Tokushima Daigaku Igakubu Daigakuin Ikgaku Kyoikubu
JAPAN

TOP

Felix Kork

University Hospital Rwth Aachen
GERMANY

Ashham Mansur

University Medical Center Goettingen
GERMANY

Wei Mei

Tongji Hospital
CHINA

Chien-Kun Ting

National Yang-Ming University
TAIWAN

Lili Xu

Second Affiliated Hospital
CHINA

Hyun Kang

Department of Anesthesiology and Pain Medicine
Chung-Ang University College of Medicine
SOUTH KOREA

Halil Cetingok

Department of Anesthesiology, Division of Pain Medicine
Istanbul Faculty of Medicine, Istanbul University
TURKEY

Ibtesam Hilmi

Department of Anesthesiology and Perioperative Medicine
University of Pittsburgh, School of Medicine
USA

Yoon Ji Choi

Department of Anesthesiology and Pain Medicine
Korea University Ansan Hospital
SOUTH KOREA

Ahmed Nasar

University of Mosul
IRAQ

John Beard

ICU Medical Inc.
USA

Breast Cancer

Marco Alves

Health Sciences Research Center
PORTUGAL

Gouri Bhattacharyya

Fortis Hospital
INDIA

Zhengshan Chen

University of California San Francisco
UNITED STATES

Xiwen Cheng

Salk Institute for Biological Studies
UNITED STATES

Sayed Daoud

Washington State University – Spokane
UNITED STATES

Undurti N Das

BioScience Research Centre
INDIA

Barthelemy Diouf

St. Jude Children's Research Hospital
UNITED STATES

Jimmy Efid

East Carolina Heart Institute
Brody School of Medicine
East Carolina University
UNITED STATES

Huitao Fan

Purdue University
UNITED STATES

Bruce Greene

Valley View Hospital
UNITED STATES

Simona Gurzu

University of Medicine and Pharmacy Tirgu-Mures
ROMANIA

Mohammad Haris

Sidra Medical and Research Center
QATAR

Shihan He

University of Michigan
UNITED STATES

Ganessan Kichenadasse**Won Sup Lee**

Gyeongsang National University School of Medicine
REPUBLIC OF KOREA

Zhentian Li

Emory University School of Medicine
UNITED STATES

Yong Liu

Brigham and Women's Hospital
UNITED STATES

Rimas Lukas

University of Chicago
UNITED STATES

Michael Masoomi

Farwaniya Hospital – MOH
KUWAIT

Hisashi Oshiro

Tokyo Medical University
JAPAN

Orestis Panagiotou

National Cancer Institute
UNITED STATES

Mustafa Rasid Toksoz

Yildirim Beyazit University
TURKEY

Yuanzhong Wang

Beckman Research Institute of City of Hope
UNITED STATES

Jingyun Yang

Rush University Medical Center
UNITED STATES

Jianjun Yuan

Henan Province People's Hospital
CHINA

Alberto Zaniboni

Fondazione Poliambulanza
ITALY

Yong Zhang

Biotechnology Company MetaMouse
UNITED STATES

Weisheng Zhang

First Affiliated Hospital of Dalian Medical University
CHINA

Flinders University
AUSTRALIA

George Kyrgias
University of Thessaly
GREECE

TOP

Cardiovascular

Section Editor**Ovidiu Constantin Baltatu**

Camilo Castelo Branco University
BRAZIL

Fabio Angeli

University Hospital S.M. della Misericordia
ITALY

Ahmet Çağrı Aykan

Trabzon Ahi Evren Chest Cardiovascular Surgery
Education and Research Hospital
TURKEY

Jacek Bil

Central Clinical Hospital of the Ministry of Interior
POLAND

George E. Billman

The Ohio State University
UNITED STATES

Grzegorz Bilo

Università di Milano-Bicocca and Istituto Auxologico
Italiano
Milan, ITALY

Luis Bras Rosario

Universidade de Lisboa
PORTUGAL

Miguel Camafort-Babkowski

University of Barcelona
SPAIN

Nipon Chattipakorn

Chiang Mai University
THAILAND

Robert Chen

Buddhist Tzu Chi General Hospital
TAIWAN

Salvatore De Rosa

Magna Graecia University
ITALY

Alessandro Durante

Ospedale Valduce
ITALY

Mauro Feola

Ospedale SS Trinita' Fossano
ITALY

Bernhard Schaller

Academic Medical Center
SWITZERLAND

Nicolas Sculthorpe

University of the West of Scotland
UNITED KINGDOM

Rosa Sicari, CNR

Institute of Clinical Physiology
ITALY

Joho Tokumine

Kyorin University School of Medicine
JAPAN

José Fernando Vilela-Martin

State Medical School in Sao Jose do Rio Preto / Sao
Paulo
BRAZIL

Antonio Vitarelli

Sapienza University
ITALY

Hsueh Hwa Wang

Columbia University
UNITED STATES

Kelvin Wong

Western Sydney University
AUSTRALIA

Wuxiang Xie

Imperial College London
UNITED KINGDOM

Dai Yamanouchi

University of Wisconsin Madison
UNITED STATES

Li Yue-Chun

Second Affiliated Hospital of Wenzhou Medical University
CHINA

Yao-Jun Zhang

Nanjing First Hospital
CHINA

Yan Ding

Harvard Medical School
UNITED STATES

Hosen Kiat

Cardiac Health Institute

Cassandra Ford

The University of Alabama
UNITED STATES

Weimin Guo

Tufts University
UNITED STATES

Christopher L Hansen

Jefferson University
UNITED STATES

Hideki Hayashi

Shiga University of Medical Science
JAPAN

Frank R. Heinzel

Charité CVK Cardiology
GERMANY

Imo Hoefler

UMC Utrecht
NETHERLANDS

Xuwei Hou

Missouri University
UNITED STATES

Chin-Chou Huang

Taipei Veterans General Hospital
TAIWAN

Ignatios Ikonomidis

National and Kapodistrian University of Athens, Medical
School
GREECE

Aaron James

Curtin University
AUSTRALIA

Thomas Kahan

Karolinska Institutet
SWEDEN

Takao Kato

Kyoto University
JAPAN

Fadi Khasawneh

Western University of Health Sciences
UNITED STATES

Masanari Kuwabara

Toranomon Hospital

AUSTRALIA

Tolga Aksu

University of Health Sciences
TURKEY

Simone Gulletta

Ospedale San Raffaele
Cardiothoracic Department
ITALY

Uddyalok Banerjee

Option Care Enterprises
USA

Andre Durães

Federal University of Bahia
BRAZIL

Ajay Yadlapati

Sharp Healthcare
USA

Stefano Rigattieri

Sant'Andrea University Hospital
Rome, Italy

Pravesh Kumar Bundhun

Guangxi Medical University
CHINA

Tian Li

School of Basic Medicine
Fourth Military Medical University/Air Force Medical
University
CHINA

Anil Jha

Lawrence General Hospital
USA

Sabato Sorrentino

Magna Graecia University
ITALY

Ali Hosseinsabet

Cardiology Department
Tehran Heart Center Hospital
Echocardiography Ward
Tehran University of Medical Sciences
IRAN

Claudio Tinoco Mesquita

Universidade Federal Fluminense

JAPAN

Justin Lee

Mayo Clinic

UNITED STATES

Yen-Hung Lin

National Taiwan University Hospital

TAIWAN

Hua Ling

UNITED STATES

Ou Liu

University of Pennsylvania

UNITED STATES

Anastasios Lymperopoulos

Nova Southeastern University

UNITED STATES

William G. Mayhan

The University of South Dakota

UNITED STATES

Wilhelm Mistiaen

University of Antwerp

BELGIUM

Stefano Omboni

Italian Institute of Telemedicine

ITALY & First Moscow State Medical University RUSSIA

Antonio Palazón-Bru

Miguel Hernández University

SPAIN

Jose Zacarías Parra Carrillo

University of Guadalajara,

MEXICO

Salvatore Patanè

Cardiologia Ospedale San Vincenzo

ITALY

Daniel Pineiro

Universidad De Buenos Aires

ARGENTINA

Davide Piraino

University Hospital of Palermo "Policlinico P.Giaccone"

ITALY

Marwan Refaat

American University of Beirut Medical Center

BRAZIL

Harsha S Nagarajao

Department of Internal Medicine

Texas Tech University Health Sciences Center

USA

Tsuneaki Sadanaga

Seigato Hospital

JAPAN

Zhifan Gao

School of Biomedical Engineering

Sun Yat-sen University

CHINA

Paulo Cury Rezende

Instituto do Coração (InCor)

University of São Paulo Medical School

BRAZIL

Neil Patel

The Wright Center for Graduate Medical Education, and

Geisinger Commonwealth School of Medicine

USA

Gwo-Ping Jong

Department of Internal Medicine

Chung Shan Medical University Hospital and Chung Shan

Medical University Hospital

TAIWAN

Iyappan Ramachandiran

Department of Cellular and Molecular Medicine

Lerner Research Institute, Cleveland Clinic

Gaurav Sharma, UT Southwestern Medical Center

USA

Uğur Canpolat

Department of Cardiology

Hacettepe University Faculty of Medicine

TURKEY

Senol Piskin

Istinye University

Istanbul

TURKEY

Flavio Palmieri

Universitat Politècnica de Catalunya (UPC) -

BarcelonaTech

SPAIN

Jose L. Flores-Guerrero

LEBANON

Irbaz Bin Riaz

University of Arizona
UNITED STATES

Leonardo Roever

Federal University of Uberlândia,
BRAZIL

Gil Fernando Salles

Federal University of Rio de Janeiro
BRAZIL

Celestino Sardu

Second University of Naples
ITALY

TOP

University of Groningen

NETHERLANDS

Tong Liu

Tianjin Key Laboratory of Ionic-Molecular Function of
Cardiovascular disease Department of Cardiology
Tianjin Institute of Cardiology Second Hospital of Tianjin
Medical University Tianjin
CHINA

Wei-Syun Hu

China Medical University and China Medical University
Hospital
TAIWAN

Clinical Genetics

Tianjian Chen

Tulane University School of Medicine
UNITED STATES

Vishal Lamba

University of Florida
UNITED STATES

Chaeyoung Lee,

Soongsil University
REPUBLIC OF KOREA

Clévio Nobrega

Universidade do Algarve
PORTUGAL

Y-h Taguchi

Chuo University
JAPAN

Lishuang Shen

Children's Hospital Los Angeles
UNITED STATES

TOP

Muhammad Tarek Abdel Ghafar

Tanta University
Egypt

Nejat Mahdih

Rajaie Cardiovascular Medical and Research Center
Iran University of Medical Sciences
IRAN

Ana Jeremić

In vitro fertilisation department (IVF)
Clinic for Gynecology and Obstetrics "Narodni Front"
SERBIA

Ivana Kavečan

Faculty of Medicine
University of Novi Sad
Institute for Children and Youth Health Care of Vojvodina
SERBIA

Andy Qiliang Ding

Cornell University
USA

Clinical Immunology

Section Editor:**Gunjan Arora**

Yale University USA

Yung-Chang Chen

University of Louisville

UNITED STATES

Edwin Leeansyah

Karolinska Institutet

SWEDEN

James M. Mathew

Northwestern University Feinberg School of Medicine

UNITED STATES

Phil-Dong Moon

Kyung Hee University

KOREA, REPUBLIC OF

Esaki M. Shankar

University of Malaya

MALAYSIA

Woo-Jung Song

Seoul National University Hospital

KOREA, REPUBLIC OF

TOP

Yong Wang

Brigham and Women's Hospital

UNITED STATES

Shan Yu

California Institute for Biomedical Research

UNITED STATES

Yong Zhang

University of Alabama at Birmingham

UNITED STATES

Rachel Evans

Cancer Institute

University College London

UNITED KINGDOM

Sabahat Sarfaraz

Dow International Medical College

Dow University of Health Sciences

PAKISTAN

Hussein Abid

Technical Institute of Baquba

Middle Technical University

IRAQ

Clinical Research Design

Qi Gong

Gilead Sciences Inc

UNITED STATES

Ahmed Negida

School of Pharmacy and Biomedical Sciences

University of Portsmouth

UK

Sherif Ali

Oral & Maxillofacial Surgery Department

Faculty of Dentistry, Cairo University

EGYPT

Carmen Baias

Europa Hochschule für Integrale Medizin, Technologie &

Ökonomie

SWITZERLAND

TOP

Complementary and Alternative Medicine

Section Editor:**Dennis Enix**

North American Spine Society
USA

Yung-Hsiang Chen

China Medical University
TAIWAN

Dennis Enix

Logan University
UNITED STATES

Sarah Fogarty

University of Western Sydney
AUSTRALIA

In-Hyuk Ha

Jaseng Medical Foundation
KOREA

Romy Lauche

University of Technology Sydney
AUSTRALIA

Masashi Mizuno

Kobe Daigaku
JAPAN

Yung-Song Lin

China Medical University
TAIWAN

Geun Hee Seol

Korea University
KOREA

TOP

Qinhong Zhang

Stanford University
UNITED STATES

Shi Ping Zhang

Hong Kong Baptist University
HONG KONG

Shagufta Perveen

King Saud University
SAUDI ARABIA

Hansen Chen

Stanford University
USA

Jun-Yong Choi

School of Korean Medicine & Korean Medicine Hospital of
Pusan National University and National Clinical Research
Center for Korean Medicine of Pusan
SOUTH KOREA

Gopal Nambi

Salman Bin Abdul Aziz University
SAUDI ARABIA

Aparajita Banerjee

Caplan Lab, University of Delaware
UNITED STATES

Jinhuan Yue

Department of Anesthesia
School of Medicine, Stanford University
USA

Critical Care and Emergency Medicine

Section Editor:**Abdelouahab Bellou**

Beth Israel Deaconess Medical Center
UNITED STATES

Barbara Adamik

Wroclaw Medical University
POLAND

Adebowale Adesina

University Hospital Lewisham
UNITED KINGDOM

Michelangelo Bortolin

Beth Israel Deaconess Medical Center
ITALY

Morten Breindahl

Copenhagen University Hospital
DENMARK

Tudor Codreanu

Busselton Health Campus
AUSTRALIA

Tomasz Czarnik

PS ZOZ Wojewodzkie Centrum Medyczne w Opolu
POLAND

Abhijit Duggal

Cleveland Clinic Lerner College of Medicine of Case
Western Reserve University
UNITED STATES

Mazen El Sayed

American University of Beirut
LEBANON

Ahmed El Shamy

Icahn School of Medicine at Mount Sinai
UNITED STATES

Vincent François

GHIC Le-Raincy Montfermeil
FRANCE

Mohan Gurjar

Sanjay Gandhi Postgraduate Institute of Medical Sciences
INDIA

Derek Heng

National University Hospital Singapore
SINGAPORE

Kwok Ming Ho**Jae-Ho Lee**

University of Ulsan
KOREA, REPUBLIC OF

Nan Liu

SingHealth
SINGAPORE

Jihad Mallat

Hospital of Lens
FRANCE

Erik Su

Johns Hopkins University
UNITED STATES

Baltasar Sanchez Gonzalez

Hospital Universitari MutuaTerrassa
SPAIN

Tamas Szakmany

Cardiff University School of Medicine
UNITED KINGDOM

Łukasz Szarpak

Medical University of Warsaw
POLAND

Andreas Ziegler

Emergency Medical Service
City of Vienna
AUSTRIA

Ardavan Khoshnood

Department of Clinical Sciences
Lund University
SWEDEN

Zhongheng Zhang

Sir Run Run Shaw Hospital
CHINA

Lokesh Tiwari

All India Institute of Medical Sciences
INDIA

Yan-Ren Lin

Changhua Christian Hospital
TAIWAN

Yale Tung-Chen

UNIVERSIDAD ALFONSO X EL SABIO
SPAIN

University of Western Australia
AUSTRALIA

TOP

Dermatology

Section Editor:

Dan Lipsker

Université de Strasbourg
FRANCE

Mauro Alaibac

University of Padua
ITALY

Kumpol Aiempanakit

Prince of Songkla University
THAILAND

Mahmood S. Choudhery

King Edward Medical University
PAKISTAN

Valerio De Vita

University of Naples
ITALY

Sergio Gonzalez Bombardiere

Pontificia Universidad Catolica de Chile
CHILE

Ismaël Maatouk

Private Practice
LEBANON

Ricardo Macarencio

Hospital Israelita Albert Einstein
BRAZIL

Arjun Mehta

University of British Columbia
CANADA

TOP

Arjun Mehta

Providence Health Care
University of British Columbia
CANADA

Tobias Sinnberg

University Medical Center of Tuebingen
GERMANY

Cheng Tan

Affiliated Hospital of Nanjing University of Chinese
Medicine
CHINA

Simone Garcovich

Institute of Dermatology
F. Policlinico Gemelli IRCCS
Università Cattolica del Sacro Cuore
ITALY

Bingrong Zhou

First Affiliated Hospital of Nanjing Medical University
CHINA

Daniel Cuestas

Universidad El Bosque
COLOMBIA

Sara Mohamed Ibrahim Ahmed Awad

Department of Dermatology
Venereology and Andrology
Assiut University Hospital
EGYPT

Diagnostic Medicine and Pathology

Section Editor:**Parag Parekh**

University of Texas MD Anderson Cancer Center
Department of Neurosurgery
USA

Farid Azmoudeh-Ardalan

Tehran University of Medical Sciences
IRAN

Adel Gouri

Badji Mokhtar University
ALGERIA

Jesper Kers

University of Amsterdam
NETHERLANDS

Hironori Kusano

Kurume University School of Medicine
JAPAN

Yuan Li

Fudan University
CHINA

Meixia Lu

Tongji Medical College
CHINA

Deqin Ma

University of Iowa
UNITED STATES

Alireza Mashaghi

Harvard University
UNITED STATES

Michael Masoomi

Farwaniya
KUWAIT

Kristina Matkowskyj

University of Wisconsin
UNITED STATES

TOP

Jeff Medeiros

University of Texas MD Anderson Cancer Center
UNITED STATES

Hisashi Oshiro

Jichi Medical University
JAPAN

Parag Parekh

University of Texas MD Anderson Cancer Center
UNITED STATES

He Wang

Temple University
UNITED STATES

Josephine Kam Tai Dermawan

Pathology & Laboratory Medicine Institute
Cleveland Clinic
USA

You-Fan Peng

School of Medicine
Southeast University
CHINA

Chang Chen

Department of Preventive Medicine
Northwestern University Feinberg School of Medicine
USA

Basant L Malpani

Bhabha Atomic Research Centre
INDIA

Amit Kumar Saha

Stanford University
USA

Francesca Sanguedolce

University of Foggia
ITALY

Drugs and Devices

Section Editor:**Lindsay Cormier**

Eastern Kentucky University
UNITED STATES

Robert L. Barkin

Northshore Uniterivsty and Rush Medical College
UNITED STATES

Ganesh Cherala

CONRAD
Eastern Virginia Medical School
UNITED STATES

Konstantinos Dimas

University Of Thessaly
GREECE

Jianxun Ding

Chinese Academy of Sciences
CHINA

Yuzhen Jiang

Jilin University
CHINA

Kai Liu

Virginia Commonwealth University
UNITED STATES

Enrica Menditto

University of Naples Federico II
ITALY

Igho Onakpoya

University of Oxford
UNITED KINGDOM

David Ranganathan

RadioMedix Inc
UNITED STATES

Cigdem Sayil

Istanbul University-Cerrahpasa
TURKEY

Durga Tripathi

Texas A&M University
UNITED STATES

Ming-hui Wu

University of Florida
UNITED STATES

Min Xie

The Gladstone Institutes
UNITED STATES

Derya İlem Özdemir

Ege University
TURKEY

Sean Hyungwoo Kim

Department of Biopharmaceutical Sciences
Bernard J. Dunn School of Pharmacy
Shenandoah University
USA

Arthur Sargun

Nolan Lab
Chemistry Department
Massachusetts Institute of Technology

Sabbir Khan

The University of Texas
MD Anderson Cancer Center
Houston, TX, USA

Meliha Ekinci

Ege University
Faculty of Pharmacy
Department of Radiopharmacy
TURKEY

Silvijus Abramavicius

Institute of Physiology and Pharmacology
Lithuanian University of Health Sciences
LITHUANIA

Nikolay Efimov

Clinical Hospital Russian Railways
RUSSIA

TOP

Endocrinology

Section Editor**Gaurav Malhotra**

Bhabha Atomic Research Centre
INDIA

Marco G. Alves

University of Beira Interior
PORTUGAL

Joshua Barzilay

Kaiser Permanente
UNITED STATES

Federico Bertuzzi

Niguarda Hospital
ITALY

Enrico Brignardello

AOU Città della Salute e della Scienza di Torino
ITALY

Xiwen Cheng

Salk Institute for Biological Studies
UNITED STATES

Fabio Comim

Universidade Federal de Santa Maria
BRAZIL

Undurti N. Das

UND Life Sciences
UNITED STATES

Maria Vittoria Davi

Medicina Generale e Malattie Aterotrombotiche e
Degenerative
ITALY

Eva Feigerlova

Universite de Lorraine
FRANCE

Hidetaka Hamasaki

Hamasaki Clinic
JAPAN

Sheyu Li

Sichuan University
CHINA

Ming Liu

The University of Michigan
UNITED STATES

Simin Liu**Kei Nakajima**

Kanagawa University of Human Services
JAPAN

Mustafa Noor

Ipsen
UNITED STATES

Paul Davis

Albany Medical College
UNITED STATES

Yoshifumi Saisho

Keio University School of Medicine
JAPAN

Jiaqing Shao

Jinling Hospital
School of Medicine
Nanjing University
CHINA

Suman Srinivasa

Massachusetts General Hospital
UNITED STATES

Chenggong Tian

Drum Tower Hospital
CHINA

Yuanzhong Wang

University of Georgia
UNITED STATES

Yujie Wen

City of Hope National Medical Center and Beckman
Research Institute
UNITED STATES

Yanqing Zhang

Tulane University
UNITED STATES

Wen Zhou

University of Miami Miller School of Medicine
UNITED STATES

Xiaodun Yang

Perelman School of Medicine at the University of
Pennsylvania
USA

Maniselvan Kuppusamy

Department of Medicine - Endocrinology, and Metabolism,

Brown University
UNITED STATES

University of Virginia
USA

TOP

Epidemiology

Section Editor:**Antonio Palazón-Bru**

Universidad Miguel Hernandez de Elche
SPAIN

Amegah Adeladza Kofi

University of Cape Coast
GHANA

Tomi Akinyemiju

University of Alabama
UNITED STATES

Alvaro Castillo-Carniglia

UC Davis
UNITED STATE OF AMERICA

Yoram Chaiter

Recruitment Center Medical Corps IDF
ISRAEL

Chi-Jung Chung

China Medical University
TAIWAN

Peter Congdon

Queen Mary University of London
UNITED KINGDOM

Belinda Gabbe

Monash University
AUSTRALIA

Amede Gogovor

McGill University
CANADA

Bing-Fang Hwang

China Medical University
TAIWAN

Khatereh Isazadehfar

Ardabil University of Medical Sciences
IRAN

Ryuichi Kawamoto

Ehime Daigaku Daigakuin Igakukei Kenkyuka Igakubu
JAPAN

Scott Langevin

University of Cincinnati
UNITED STATES

Quang Le

Western University of Health Sciences

Orestis Panagiotou

National Cancer Institute
UNITED STATES

Dimitrios Paraskevis

National and Kapodistrian University of Athens
GREECE

Ryan Richard Ruff

New York University College of Dentistry
UNITED STATES

Stephanie Shiau

Columbia University
UNITED STATES

Virginie Supervie

INSERM
FRANCE

Anish Thachangattuthodi

Baylor College Of Medicine
UNITED STATES

Jianbing Wang

School of Public Health
Zhejiang University
CHINA

Pat Zrelak

University of California Davis
UNITED STATES

Tiejun Zhang

Fudan University
CHINA

Francesca Gorini

National Research Council
ITALY

Xin Yang

Institute of Business Analytics
The University of Alabama
USA

Xuerong Wen

Department of Pharmacy Practice
University of Rhode Island and University of Florida
USA

Andrea Giuseppe Maugeri

Department of Medical and Surgical Sciences and
Advanced Technologies, "GF Ingrassia"

UNITED STATES

Daisuke Onozuka

Kyushu University

JAPAN

TOP

University o, ITALY

Jinfeng Li

Imperial College London and University of Southampton

UK

Gastroenterology and Hepatology

Section Editor:**Christine Pocha**

Avera University Hospital & Transplant Institute
USA

Abd Elrazek Abd Elrazek

Aswan School of Medicine
EGYPT

Sherief Abd-Elsalam

Tanta University
EGYPT

Ludovico Abenavoli

University Magna Graecia of Catanzaro
ITALY

Luigi Elio Adinolfi

Second University of Naples
ITALY

Akash Ajmera

Marshall University
UNITED STATES

Canbay Ali

University Hospital Essen
GERMANY

Sreekanth Appasani

Continental Hospitals
INDIA

Ingrid Arijs

Katholieke Universiteit Leuven
BELGIUM

Heiko Aselmann

Kiel University Hospital
GERMANY

Samy A. Azer

King Saud University
SAUDI ARABIA

Daniel Vasile Balaban

"Carol Davila" University of Medicine and Pharmacy
Bucharest, ROMANIA

Bulent Baran

Koç University Hospital
TURKEY

Gabrio Bassotti

University of Perugia Medical School

Martin Keuchel

Bethesda Krankenhaus Bergedorf
GERMANY

Seungtaek Kim

Yonsei University College of Medicine
KOREA, REPUBLIC OF

Akiyoshi Kinoshita

Jikei University Daisan Hospital
JAPAN

Spiros Ladas

Medical School, Athens University
GREECE

Yean Lim

County Durham and Darlington Foundation Trust
UNITED KINGDOM

Wenyu Lin

Massachusetts General Hospital and Harvard Medical
School
UNITED STATES

Andrea Lisotti

University of Bologna
ITALY

Tobias Meister

University of Göttingen
GERMANY

Robert Moran

Johns Hopkins University
UNITED STATES

Fadi Mourad

American University of Beirut Medical Center
LEBANON

Ugo Nzeako

Watson Clinic LLP
UNITED STATES

Shuskue Ohnishi

Hokkaido University
JAPAN

Abderrahim Oussalah

University of Lorraine
FRANCE

Jen-Jung Pan

The University of Texas Medical School at Houston

ITALY

Marco Biolato

Fondazione Policlinico Gemelli

ITALY

Brian Borg

University of Mississippi Medical Center

UNITED STATES

Mohamed Bouattour

Beaujon University Hospital

FRANCE

Jorge Manuel Tavares Canena

University Center of Gastroenterology

PORTUGAL

Agustin Castiella

Mendaro Hospital

SPAIN

Jae Hyuck Chang

The Catholic University of Korea

REPUBLIC OF KOREA

Saurabh Chawla

Emory University School of Medicine

UNITED STATES

Weina Chen

Tulane University School of Medicine

UNITED STATES

Ana J Coito

UCLA, UNITED STATES

Maneesh Dave

Case Western Reserve University

UNITED STATES

Mohammad Derakhshan

University of Glasgow

UNITED KINGDOM

Hirayuki Enomoto

Hyogo College of Medicine

JAPAN

Huitao Fan

The University of North Carolina at Chapel Hill

UNITED STATES

Daniela Fanni

Azienda Ospedaliero Universitaria di Cagliari

UNITED STATES

Jun Yong Park

Yonsei University College of medicine

KOREA

Raffaele Pezzilli

Sant'Orsola-Malpighi Hospital

ITALY

Christine Pocha

University of Bern

SWITZERLAND

Chandrasekharan Rajasekharan

Government Medical College

Thiruvananthapuram, INDIA

Tuomo Rantanen

Kuopio University Hospital

FINLAND

Giuseppe Scalisi

Gastroenterology Unit M. Raymond Hospital

ITALY

Dong Hyun Sinn

Samsung Medical Center, Sungkyunkwan University

School of Medicine

KOREA

Mostafa Sira

Menofiya University

EGYPT

Vishwas Vanar

University of Illinois College of Medicine at Peoria

UNITED STATES

Pamela Schitz Von Reisswitz

Hospital Nossa Senhora da Conceição

BRAZIL

Sunny Wong

The Chinese University of Hong Kong

HONG KONG

Harry Hua-Xiang Xia

Novartis Pharmaceuticals Corporation

UNITED STATES

Hua Yang

Peking University

CHINA

ITALY

Alexandre Ferreira

Hospital Beatriz Ângelo

PORTUGAL

Pedro Figueiredo

University of Coimbra

PORTUGAL

Chun Gao

China-Japan Friendship Hospital

Ministry of Health

CHINA

Ricardo Gehrau

University of Virginia

UNITED STATES

Joseph George

Kanazawa Medical University

JAPAN

Carlo Girelli

Hospital Of Busto Arsizio

ITALY

Luisa Guidi

Università Cattolica del Sacro Cuore

Roma, ITALY

Vivek Gumaste

Montefiore Medical Center/Albert Einstein School of

Medicine

UNITED STATES

Simona Gurzu

University of Medicine and Pharmacy Tirgu-Mures

ROMANIA

Goran Hauser

Clinical Hospital Centre

CROATIA

Ching-Sheng Hsu

Taipei Tzu Chi Hospital

TAIWAN

Okasha Hussein

Cairo University

EGYPT

Takafumi Ichida

Shona-East General Hospital

JAPAN

Eva Zapata

Hospital de Mendaro

SPAIN

Žarko Babić

Zagreb University Medical School

CROATIA

Deqiang Zhang

University of Michigan

UNITED STATES

Mahendran Jayaraj

University of Nevada Las Vegas School of Medicine

UNITED STATES

Ashish Sharma

Yuma Regional Medical Center....

Zaid Imam

William Beaumont Hospital

USA

Dengming He

Division of Infectious Diseases/Institute of Liver Diseases

960th Hospital of Chinese PLA

CHINA

Dongbo Wu

Center of Infectious Diseases

West China Hospital of Sichuan University

CHINA

Xingshun Qi

General Hospital of Northern Theater Command

CHINA

Min Xu

Department of Surgery

Washington University School of Medicine

USA

Jiannan Li

Cleveland Clinic

Lerner Research Institute

USA

John Paul Norvell

Division of Gastroenterology and Hepatology

University of Colorado

USA

Luis Lopes

Hospital Santa Luzia ULS Alto Minho/ University of Minho

Mohamad Imam

University Of North Dakota
UNITED STATES

Yusheng Jiang

Harvard Medical School
UNITED STATES

Bülent Kantarçeken

Sütçü Imam University
TURKEY

Shigeyuki Kawa

Shinshu University
JAPAN

TOP

PORTUGAL

Serag Mohamed Esmat Mahmoud Ali

Cairo University
Kasr Alainy
Faculty of Medicine
EGYPT

Shaohang Cai

Southern Medical University
CHINA

Genetics**Yusheng Jiang**

Harvard Medical School
UNITED STATES

Hui Li

University of Virginia
UNITED STATES

Patricia Severino

Hospital Israelita Albert Einstein
BRAZIL

Amit Singh

University of Dayton
UNITED STATES

Han Zhang

National Cancer Institute (NCI)
UNITED STATES

Surinder Kumar

University of Michigan
UNITED STATES

Jinqiang Liu

University of California

TOP

Yingjie Zhao

Albert Einstein College of Medicine
USA

Ignazio Stefano Piras

Translational Genomic Research Institute –
Neurogenomics Division, Huentelman Lab
USA

Yang Cheng

Boehringer Ingelheim Pharmaceuticals
USA

Jinrui Xu, Yale University

USA

Ning Zhang

Northwestern University
USA

Zichong Li

The J. David Gladstone Institutes, University of California
USA

Shashank Hambarde

Houston Methodist Research Institute
Houston TX

Geriatrics

Maria Giné-Garriga

Universitat Ramon Llull
SPAIN

Doris Leung

Chinese University of Hong Kong
HONG KONG

Tuck Yean Yong

Flinders Private Hospital
AUSTRALIA

TOP

Yiqiang Zhan

Karolinska Institutet
SWEDEN

Yang Ou

University of Arkansas for Medical Sciences
USA

Global Health

Kathryn Schnippel

University of Cape Town
SOUTH AFRICA

Zhonghua Sun

Huazhong University of Science & Technology
CHINA

Karen S. Fernandez

University of Illinois College of Medicine

TOP

Poonam Gupta

Institute For Healthcare Improvement
USA

Rahul Singh

Department of Basic and Translational Sciences
School of Dental Medicine, University of Pennsylvania
USA

Hematology

Section Editor:**Lydia Eccersley**

St Bartholomew's Hospital
UNITED KINGDOM

Minoo Ahmadinejad

Iranian Blood Transfusion Research Center
IRAN

Wael Alkhiary

Mansoura University
EGYPT

Anser Azim

Chicago State University
UNITED STATES

ZhiJun Duan

University of Washington
UNITED STATES

Lydia Eccersley

Imperial College London
UNITED KINGDOM

Ravi Kumar Gutti

University of Hyderabad
INDIA

Amir Hamdi

The University of Texas MD Anderson Cancer Center
UNITED STATES

Gaurav Jain

University of Pittsburgh School of Medicine
UNITED STATES

Yuxuan Liu

Columbia University Medical Center
UNITED STATES

TOP

Rita Marchi

Instituto Venezolano de Investigaciones Científicas
VENEZUELA

Colin Phipps

Singapore General Hospital
SINGAPORE

Qing Wang

University of Michigan
UNITED STATES

Chunhua Song

Pennsylvania State University College of Medicine
UNITED STATES

Alauldeen Mudhafar Zubair Alqasim

Department of Hematology
Sultan Qaboos University Hospital
Muscat, Oman

Artur Stomka

Department of Pathophysiology, Nicolaus Copernicus
University and Ludwik Rydygier Collegium Medicum
POLAND

Chuan Chen

University of Miami Miller School of Medicine
USA

Mihnea-Alexandru Găman

Faculty of Medicine "Carol Davila" University of Medicine
and Pharmacy, Bucharest & Department of Hematology,
Centre of Hematology and Bone Marrow Transplantation,
Fundeni Clinical Institute
ROMANIA

HIV/AIDS

Marco Alves

Health Sciences Research Center
PORTUGAL

Angela Amedee

Louisiana State University
UNITED STATES

Gouri Bhattacharyya

Fortis Hospital
INDIA

Zhengshan Chen

University of California San Francisco
UNITED STATES

Xiwen Cheng

Salk Institute for Biological Studies
UNITED STATES

Sayed Daoud

Washington State University – Spokane
UNITED STATES

Undurti N Das

BioScience Research Centre
INDIA

Barthelemy Diouf

St. Jude Children's Research Hospital
UNITED STATES

Jimmy Efid

East Carolina Heart Institute, Brody School of Medicine,
East Carolina University
UNITED STATES

Huitao Fan

Purdue University
UNITED STATES

Bruce Greene

Valley View Hospital
UNITED STATES

Simona Gurzu

University of Medicine and Pharmacy Tirgu-Mures
ROMANIA

Mohammad Haris

Sidra Medical and Research Center
QATAR

Shihan He

University of Michigan

Won Sup Lee

Gyeongsang National University School of Medicine
REPUBLIC OF KOREA

Zhentian Li

Emory University School of Medicine
UNITED STATES

Yong Liu

Brigham and Women's Hospital
UNITED STATES

Rimas Lukas

University of Chicago
UNITED STATES

Michael Masoomi

Farwaniya Hospital – MOH
KUWAIT

Hisashi Oshiro

Tokyo Medical University
JAPAN

Orestis Panagiotou

National Cancer Institute
UNITED STATES

Mustafa Rasid Toksoz

Yildirim Beyazit University
TURKEY

Yuanzhong Wang

Beckman Research Institute of City of Hope
UNITED STATES

Jingyun Yang

Rush University Medical Center
UNITED STATES

Jianjun Yuan

Henan Province People's Hospital
CHINA

Alberto Zaniboni

Fondazione Poliambulanza
ITALY

Yong Zhang

Biotechnology Company MetaMouse
UNITED STATES

Weisheng Zhang

First Affiliated Hospital of Dalian Medical University

UNITED STATES

Ganessan Kichenadasse

Flinders University

AUSTRALIA

George Kyrgias

University of Thessaly

GREECE

TOP

CHINA

Rajesh Thippeshappa

Texas Biomedical Research Institute, Southwest National

Primate Research Center

USA

Immunology

Ramzi Gupta

University of Texas at San Antonio
UNITED STATES

Changzheng Li

Southern Medical University
CHINA

Yan Li

Cleveland Clinic
UNITED STATES

Yuan Lin

La Jolla Institute of Allergy and Immunology
UNITED STATES

Sung Jae Shin

Yonsei University College of Medicine
KOREA, REPUBLIC OF

Fumio Tsuji

Santen Pharmaceutical Co.
JAPAN

Ming Zhang

State University of New York Downstate Medical Center
UNITED STATES

Yuan Tian

Fred Hutchinson Cancer Research Center
Seattle WA, UNITED STATES

Rupsa Basu

TechnoVax Inc
USA

Jianli Tao

Department of Pathology, Boston Children's Hospital and
Harvard Medicine School
USA

Nirmal Verma

Department of Pharmacology and Nutritional
Sciences, University of Kentucky
USA

TOP

Trupti Vardam-Kaur

Department of Immunology, Mayo Clinic
USA

Nazmul Haque

Department of Oral Biology and Biomedical Sciences,
MAHSA
MALAYSIA

Subhashchandra Naik

ReForm Biologics
USA

Muhsin Jamal

Department of Microbiology, Abdul Wali Khan University
PAKISTAN

Shalini Tanwar

Laboratory of Cellular Immunology, NIAID/NIH
USA

Dayi Li

The Kimmel Center for Biology and Medicine of the
Skirball Institute, New York University School of Medicine
USA

Hemant Jaiswal

NIAID, National Institutes of Health
USA

Bogang Wu

The George Washington University
USA

Rahul Kumar Jangid

Baylor College of Medicine
USA

Sandip Mukherjee

University of Texas Southwestern Medical Center
USA

Sandeep Upadhyay

NIEHS, National Institute of Health
USA

Infectious Diseases

Section Editor:**Nikhil Jain**

Baylor College of Medicine
USA

Section Editor:**Oliver Schildgen**

Klinken der Stadt Köln gGmbH
GERMANY

Amin Talebi Bazmin Abadi

Tarbiat Modares University
IRAN

Nourtan Abdeltawab

Cairo University
EGYPT

Sharilyn Almodovar

University of Colorado
UNITED STATES

Ramzi Alsallaq

New York University
UNITED STATES

Angela M Amedee

Louisiana State University
UNITED STATES

Victor Asensi

Hospital Universitario Central De Asturias; Oviedo
University School Of Medicine
SPAIN

Mehmet Bakir

Cumhuriyet Universitesi Tip Fakultesi
TURKEY

Anna Bonjoch

Germans Trias i Pujol University Hospital
SPAIN

Grant R. Campbell

UC San Diego
UNITED STATES

Joseph Cervia

Hofstra Northwell School of Medicine
UNITED STATES

Akhilanand Chaurasia

King George'S Medical University
INDIA

Erle Robertson

Penn Medicine
UNITED STATES

Ken S. Rosenthal

Roseman University of Health Sciences College of
Medicine
UNITED STATES

Pavlos Sarafis

Cyprus University of Technology
CYPRUS

Oliver Schildgen

Klinken der Stadt Köln gGmbH
GERMANY

Liang Shang

University of Minnesota
UNITED STATES

Shmuel Shoham

Johns Hopkins University
UNITED STATES

Haseeb A. Siddiqi

State University of New York Downstate Medical Center
UNITED STATES

Jessica Snowden

University of Nebraska Medical Center
UNITED STATES

Leonard Sowah

Chase Brexton Health Services
UNITED STATES

Lionel Tan

Imperial College London
UNITED KINGDOM

Ramon Teira Cobo

Hospital de Sierrallana
SPAIN

Carlo Torti

University "Magna Graecia"
ITALY

Alejandro Vallejo

Hospital Ramón Y Cajal, Madrid
ESPAÑA

Shih-Min Wang

Rodrigue Dessein

Lille University Teaching Hospital
FRANCE

Martin Herbas Ekat

Ministère de la Santé
REPUBLIC OF CONGO

Rana El Feghaly

University of Mississippi Medical Center
UNITED STATES

Mohamed G. Elfaki

Alfaisal University College of Medicine
SAUDI ARABIA

Susanna Esposito

Institute of Pediatrics
TALY

Chia-Kwung Fan

Taipei Medical University
TAIWAN

Cassiano Felipe Gonçalves de Albuquerque

Universidade Federal do Estado do Rio de Janeiro
BRAZIL

Qiushui He

University of Turku
FINLAND

Abrar Hussain

Balochistan University of Information Technology
Engineering and Management Sciences
PAKISTAN

Ewa Janczewska

ID Clinic
POLAND

Mohammad-Ali Jenabian

Université du Québec à Montréal
CANADA

Eric Lau

University of Hong Kong
CHINA

Shui Shan Lee

Chinese University of Hong Kong
HONG KONG

Liang Jin

Monash University

National Cheng Kung University and Hospital
TAIWAN

Richard R. Watkins

Cleveland Clinic Akron General Medical Center
UNITED STATES

Signe Worm

Rigshospitalet
DENMARK

Pablo Yagupsky

Soroka University Medical Center
ISRAEL

Chiyu Zhang

nstitut Pasteur of Shanghai
CHINA

Ping Zhong

Shanghai Municipal CDC
CHINA

Vivek Agrahari

Eastern Virginia Medical School
UNITED STATES

Leyi Wang

University of Illinois at Urbana-Champaign
UNITED STATES

Nikhil Jain

Baylor College of Medicine
UNITED STATES

Vineet Gupta

University of California San Diego (UCSD)
USA

Kengo Inagaki

University of Mississippi Medical Center
USA

Leena Mallik

University of Michigan
USA

Choon Kiat Sim

National Human Genome Research Institute, National
Institutes of Health
USA

Yun Ling

Shanghai Public Health Clinical Center, Fudan University
CHINA

AUSTRALIA

Eduard Karamov

Gamaleya Center(Ivanovsky Institute of Virology)
RUSSIA

Naveed Ahmed Khan

Sunway University
MALAYSIA

M. Scott Killian

University of South Dakota Sanford School of Medicine
UNITED STATES

Kersten Koelsch

The Kirby Institute
AUSTRALIA

Jason Leider

Albert Einstein College Of Medicine
UNITED STATES

Anna S. Levin

University Of São Paulo
BRAZIL

Hao Kim Lu

Peter Doherty Institute, University of Melbourne
AUSTRALIA

Barry Margulies

Towson University
UNITED STATES

Claudio Mastroianni

Mastroianni
ITALY

Seiho Nagafuchi

Saga University, Medical School
JAPAN

Vivek Naranbhai

University of Oxford and Centre for the AIDS Programme
of Research in South Africa
UNITED KINGDOM

Peter Nyasulu

Monash Univesity
SOUTH AFRICA

Clovis Palmer

Burnet Institute
AUSTRALIA

Limin Chen

Center for Transfusion-transmitted Infectious Diseases,
Institute of Blood Transfusion (IBT)
Chinese Academy of Medical Sciences (CAMS) and
Peking Union Medical College (PUMC)
CHINA

Vidyu Salunkhe

Division of Infectious Diseases, University of Louisville
USA

Max Carlos Ramírez-Soto

Faculty of Health Sciences, Universidad Tecnológica del
Peru
PERU

Wei Zou

Department of Microbiology and Immunology
University of Michigan
USA

Bruno M. Carneiro

Rondonópolis Federal University School of Medicine
BRAZIL

Pratima Rawat

University of California
USA

Oana Săndulescu

Department of Infectious Diseases
Carol Davila University of Medicine and Pharmacy
ROMANIA

Tony G. Qin

Nantong University
CHINA

Pablo Ferrer

Molecular Medicine Laboratory
Hospital Clínico Universidad de Chile
CHILE

Haider Abdul-Lateef Mousa

University of Basrah, College of Medicine
IRAQ

Kumari Sonal Choudhary

University of California
USA

Vipul Kumar Singh

Houston Methodist Research Institute
USA

Fateh Rahimi

University of Isfahan
IRAN

Giuliano Rizzardini

Luigi Sacco University Hospital
ITALY

TOP

Mental Health**Yong-hui Dang**

Xi'an Jiaotong University
CHINA

Michele Fornaro

Columbia University
UNITED STATES

Roger Gibson

University of the West Indies
JAMAICA

Chang-Bing Huang

Institute of Psychology Chinese Academy
CHINA

Numan Konuk

Istanbul University
TURKEY

Mirko Manchia

University of Cagliari/ Dalhousie University
ITALY/CANADA

Thomas Polak

University Clinic Wuerzburg
GERMANY

TOP

Namrata Singhania

Mount Carmel East Hospital
USA

Massimo Tusconi

University of Texas Health Science Center at Houston
UNITED STATES

Feng Liu

Tianjin Medical University General Hospital
CHINA

Corey Richardson

Integrated Care of Greater Hickory
USA

Chiedu Eseadi

University of Nigeria
NIGERIA

Sanket Dhat

Liberty University, School of Osteopathic Medicine and
Centra Medical Group
USA

Samet Çelik

Istanbul Medipol University, Neuroscience Department
ISTANBUL
and Zonguldak Bulent Ecevit University, Health,
Application and Research Center
TURKEY

Metabolic Disorders

Section Editor:**Giovanni Tarantino**

Federico II University Medical School of Naples
ITALY

María–Luz Couce

Universitario de Santiago de Compostela
SPAIN

Giovanni Li Volti

University of Catania
ITALY

Bin Xu

Virginia Polytechnic Institute and State University
UNITED STATES

Liang-Jun Yan

University of North Texas Health Science Center
UNITED STATES

Lenan Zhuang

Zhejiang University

TOP

Gustavo Werpel Fernandes

Department of Endocrinology, University of Chicago
USA

Ozra Tabatabaei Malazy

Assistant Professor Endocrinology and Metabolism
Research Institute (EMRI)
Tehran University of Medical Sciences
IRAN

Ravi Kumar Komaravolu

Oklahoma Medical Research Foundation
USA

Haroon Khan

Department of Pharmacy
Abdul Wali Khan University
PAKISTAN

Nephrology

Section Editor:**Dominik Steubl**

Klinikum rechts der Isar der Technischen Universität
München
GERMANY

Mohamed Atta

Johns Hopkins University
UNITED STATES

Sola Aoun Bahous

Lebanese American University
LEBANON

Chia-ter Chao

National Taiwan University Hospital
TAIWAN

Yung-Hsiang Chen

Chang Gung Memorial Hospital
TAIWAN

Darshika Chhabra

Advocate Christ Medical Center
UNITED STATES

Rowena Delos Santos

Washington University
UNITED STATES

Carlo Donadio

University Of Pisa
ITALY

Costas Fourtounas

University of Thessaly
GREECE

Vanja Ivković

University Hospital Centre Zagreb
CROATIA

Gur Kaushal

University of Arkansas,
UNITED STATES

Jui-Hsiang Lin

Taoyuan General Hospital
TAIWAN

Muhammed Mubarak

Sindh Institute of Urology and Transplantation
PAKISTAN

Tibor Nadasdy**Ikechi Okpechi**

University of Cape Town
SOUTH AFRICA

Sanket Patel

University of Houston College of Pharmacy
UNITED STATES

Malindretos Pavlos

Achillopouleion General Hospital
GREECE

Tuncay Sahutoglu

Sisli Hamidiye Etfal Education and Research Hospital
TURKEY

Alfonso H. Santos

University Of Florida
UNITED STATES

Jinxian Xu

Medical College of Georgia in Augusta University
UNITED STATES

Eun Young Lee

Soonchunhyang University Hospital Cheonan
KOREA, REPUBLIC OF

Xu-Jie Zhou

Peking University Institute of Nephrology
CHINA

Zhao Sun

Washington University
UNITED STATES

Narothama Reddy Aeddula

Indiana University School of Medicine and Deaconess
Health System Inc
UNITED STATES

Atul Bali

CMG Southside Nephrology Center
USA

Masaki Hara

Tokyo Dialysis Frontier Ikebukuro Station North Clinic
JAPAN

Hugo You-Hsien Lin

Department of Internal Medicine
Kaohsiung Municipal Ta-Tung Hospital and Division of
Nephrology
Kaohsiung Medical University Hospital

The Ohio State University
UNITED STATES

TAIWAN

TOP

Neurology

Section Editor:**Qinhong Zhang**

Stanford University
USA

Oscar Arias-Carrión

Hospital General
MEXICO

Devrimsel Harika Ertem

Sisli Hamidiye Etfal Training and Research Hospital
TURKEY

Thorleif Etgen

kbo-Inn-Salzach-Klinikum
GERMANY

Ravindra Kumar Garg

King George Medical University
INDIA

Chaur-Jong Hu

Taipei Medical University
TAIWAN

Han – Hwa Hu

Taipei Medical University
TAIWAN

Faik Ilik

Baskent University
TURKEY

Steven Levine

State University of New York Downstate Medical Center
UNITED STATES

Yong Liu

Loma Linda University Medical Center
UNITED STATES

Thomas Müller

St. Joseph Hospital
GERMANY

Fabricio Oliveira

Federal University of São Paulo – UNIFESP
BRAZIL

Aleph Prieto

University of California Irvine
UNITED STATES

Bappaditya Ray

University of Oklahoma Health Sciences Center

Kai Wu

South China University of Technology
CHINA

Wanqing Wu

Shenzhen Institutes of Advanced Technology
CHINA

Jingyun Yang

Rush University Medical Center
UNITED STATES

Tzong-Shiue Yu

Columbia University Medical School
UNITED STATES

Khashayar Dashtipour

Loma Linda University
UNITED STATES

Wen-Jun Tu

Peking Union Medical College
Chinese Academy of Medical Sciences
CHINA

Hailong Song

Department of Neurosurgery
Penn Center for Brain Injury and Repair
Perelman School of Medicine, University of Pennsylvania
USA

Keisuke Suzuki

Department of Neurology
Dokkyo Medical University
JAPAN

Carlos Augusto Carvalho de Vasconcelos

Federal University of Pernambuco – Department of
Nutrition/CCS
BRAZIL

Honghe Liu

Department of Biochemistry and Molecular Biology, Johns
Hopkins University
USA

Mehmet Güney Şenol

Neurology Department
Abdülhamit Han Training Hospital, Health Sciences
University
TURKEY

Narayan Subramanian

Florida State University

UNITED STATES

Richard Rison

Neurology Consultants Medical Group

UNITED STATES

Raymond L. Rosales

University of Santo Tomas

PHILIPPINES

Elena Cecilia Rosca

University of Medicine and Pharmacy Victor Babes

Timisoara

ROMANIA

Anwen Shao

Zhejiang University

CHINA

Chandra Somasundaram

Texas Nerve and Paralysis Institute

UNITED STATES

Mark Stecker

Winthrop-University Hospital

UNITED STATES

Stefano Tamburin

University of Verona

ITALY

Lucy Troup

Colorado State University

UNITED STATES

Dana Turcotte

University of Manitoba

CANADA

TOP

USA

Jesus Porta-Etessa

Hospital Clínico San Carlos and Universidad Complutense

de Madrid

SPAIN

Antonino Tuttolomondo

University of Palermo

ITALY

Stanislav Lazopulo

Department of Physics, University of Miami

USA

Dhruba Pathak

Department of Anatomy & Neurobiology, Boston University

School of Medicine

USA

Shereen Fathi

Cairo University

EGYPT

Angel L Guerrero

Hospital Clínico Universitario

SPAIN

Xiang Wang

Salk Institute for Biological Studies

USA

Qi Fang

University of Southern California

USA

Non-Clinical Medicine

Pricivel Carrera

University of Twente
NETHERLANDS

Oguzhan Ekizoglu

Tepecik Training and Research Hospital
TURKEY

Boyko Gueorguiev

AO Research Institute Davos
SWITZERLAND

Alfons Lawen

Monash University
AUSTRALIA

TOP

Phil Phan

Johns Hopkins University
UNITED STATES

Kyoungho Suk

Kyungpook National University School of Medicine
REPUBLIC OF KOREA

Wilson Tam

National University of Singapore
SINGAPORE

Nutrition

Section Editor:**Marcello Iriti**

Milan State University
ITALY

Danny Jacobs

University of Texas Medical Branch at Galveston
UNITED STATES

Nenad Naumovski

University of Canberra
AUSTRALIA

TOP

Yoshihiro Shidoji

University of Nagasaki
JAPAN

Daryle Wane

Pasco Hernando State College
UNITED STATES

Arrigo Cicero

Medicine and Surgery Sciences Department, Alma Mater
Studiorum University of Bologna
ITALY

Obstetrics and Gynecology

Kimon Chatzistamatiou

Aristotle University of Thessaloniki
GREECE

Sumaiya Adam

University of Pretoria
SOUTH AFRICA

Milan Perović

Clinic for Gynecology and Obstetrics "Narodni Front",
University of Belgrade
SERBIA

Chun-Che Huang

Department of Healthcare Administration, College of
Medicine, I-Shou University
TAIWAN

Saeed Marzoq Baradwan

Department of Obstetrics and Gynecology, HealthPlus
Fertility and Women's Health Center
SAUDI ARABIA

Burak Bayraktar

Department of Obstetrics and Gynecology, University of
Health Sciences Tepecik Education and Research Hospital
TURKEY

TOP

Oncology

Section Editor:**Jianxun Ding**

Changchun Institute of Applied Chemistry, Chinese
Academy of Sciences
CHINA

Thomas E. Adrian

United Arab Emirates University
UNITED ARAB EMIRATES

Martin S. Staeger

Martin Luther University Halle Wittenberg
GERMANY

Saeed Alzghari

Gulfstream Diagnostics
UNITED STATES

Sumit Arora

University of South Alabama
UNITED STATES

Eugeniu Banu

Saint Constantin Hospital
ROMANIA

Xuhui Bao

Duke University School of Medicine
UNITED STATES

Arun Bhardwaj

University of South Alabama
UNITED STATES

Laszlo Geza Boros

University of California- Los Angeles
UNITED STATES

Gouri Shankar Bhattacharyya

Fortis Hospital, Anandapur, Kolkata
INDIA

Chunxia Cao

University of Florida
UNITED STATES

Sayed S. Daoud

Washington State University
UNITED STATES

Giuseppe Di Lorenzo

Medical Oncology Federico II University
ITALY

Barthelemy Diouf**Huaizhi Wang**

Third Military Medical University
CHINA

Lei Wang

City of Hope Cancer Center
UNITED STATES

Wei Wang

University of Tennessee Health Science Center
THE UNITED STATES

Weidong Wang

Sichuan Cancer Hospital
CHINA

Yutang Wang

University of Florida
UNITED STATES

Shun-Fa Yang

Institute of Medicine, Chung Shan Medical University
TAIWAN

Haseeb Zubair

University of South Alabama Mitchell Cancer Institute
UNITED STATES

Girijesh Patel

University of South Alabama
UNITED STATES

Chinnadurai Mani

Texas Tech University Health Sciences Centre
UNITED STATES

Guanyi Zhang

Louisiana State University
UNITED STATES

Seyed Alireza Javadinia

Mashhad University of Medical Sciences
IRAN

Balaji Thas Moorthy

MILLER SCHOOL OF MEDICINE, UNIVERSITY OF
MIAMI
FL, UNITED STATES

Kartik Anand

Great Plains Health Callahan Cancer Center
NE, USA

Sagar Sohoni

University of Texas MD Anderson Cancer Center

St Jude Children's Research Hospital
UNITED STATES

Tamer Fouad

National Cancer Institute Cairo University
EGYPT

Gilbert Fruhwirth

King's College London
UNITED KINGDOM

Gaurav Goel

University of Pittsburgh Cancer Institute
UNITED STATES

Hao Guo

Dana Farber Cancer Institute
UNITED STATES

Shihan He

University of Michigan
UNITED STATES

Lei Huang

Deutsches Krebsforschungszentrum
GERMANY

Ravishankar Jayadevappa

University of Pennsylvania
UNITED STATES

Victor C. Kok

Asia University Taiwan/Kuang Tien General Hospital
TAIWAN

Raj Kumar

Harvard Medical School
UNITED STATES

Ninh M. La-Beck

Texas Tech University Health Sciences Center
UNITED STATES

Jong Hoon Lee

College of Medicine, The Catholic University of Korea
SOUTH KOREA

Bo Li

University of Pennsylvania Perelman School of Medicine
UNITED STATES

Jianfeng Li

University of South Alabama Mitchell Cancer Institute
UNITED STATES

USA

Suman Suman

University of Chicago
USA

Jian-Guo Zhou

Department of Radiation Oncology, Universitätsklinikum
Erlangen
GERMANY

and

Department of Oncology, The Second Affiliated Hospital of
Zunyi Medical University
CHINA

Gauri Shishodia

Louisiana State University Health Sciences Center
USA

Chien-Feng Li

Department of Pathology, Chi Mei Medical Center
TAIWAN

Rehan Khan

Department of Immunology, Mayo Clinic
USA

Shigao Huang

Faculty of Health Sciences, University of Macau
CHINA

Vinay Mittal

Thermo Fisher Scientific
USA

Chao Mao

Department of Experimental Radiation Oncology, MD
Anderson Cancer Center
USA

Shengchun Wang

Fox Chase Cancer Center
USA

Geraldine Vidhya Raja

Department of Immunology, Mayo Clinic
USA

Yubao Wang

Perlmutter Cancer Center, New York University School of
Medicine
USA

Wenwen Zhang

Zhentian Li

Emory University
UNITED STATES

Shizhang Ling

Johns Hopkins University
UNITED STATES

Chong Liu

Zhejiang University School of Medicine
CHINA

Frank Xiaoqing Liu

Merck & Co., Inc.
UNITED STATES

Jian Liu

National Institute of Environmental Health Sciences
UNITED STATES

Tao Liu

Emory University
UNITED STATES

Zhiyong Liu

UC San Francisco
UNITED STATES

Yan Liu

Vanderbilt University School of Medicine
UNITED STATES

Weiwen Long

Wright State University
UNITED STATES

Devin B. Lowe

Texas Tech University Health Sciences Center
UNITED STATES

Min Lu

Duke University
UNITED STATES

Peng Luo

Southern Medical University
CHINA

Yongjie Ma

AntiCancer Inc.
UNITED STATES

Parth Mehta

Baylor College of Medicine/Texas Children's Cancer Center
UNITED STATES

Department of Oncology, Nanjing First Hospital, Nanjing
Medical University
CHINA

Jie Li

Perlmutter Cancer Center, New York University School of
Medicine
USA

Milind Chalisehar

Translational Biomarkers, Merck & Co.
USA

Abhishek Kumar

Albert Einstein School of Medicine, Jacobi Medical Center
& North Central Bronx Hospital
USA

Nikhil G. Patel

Medical College of Georgia, Augusta University
USA

Yue Wang

Department of Research and Development, Beijing
Springer Institute of Medicine Research
CHINA

Ali Saber

Zimagine Medical Genetics Lab, Hamedan
IRAN

Thinkh Nguyen

Texas Tech Health Sciences Center
USA

Maorong Chen

Department of Neurology, Harvard Medical School
USA

Zhihong Xue

Division of Immunotherapy, Institute of Human Virology,
University of Maryland School of Medicine
USA

Hanghang Zhang

Temple University School of Medicine, Fels Institute for
Cancer Research & Molecular Biology
USA

Rasika Hudlikar

Rutgers, The State University of New Jersey
USA

Guang Lei

Yabing Mu

Umeå University
SWEDEN

Yuzuru Niibe

Toho University
JAPAN

Atish Patel

National Institute of Health
UNITED STATES

Sethuramasundaram Pitchiaya

University of Michigan,
UNITED STATES

Lars Rönstrand

Lund University
SWEDEN

Giandomenico Roviello

University of Brescia
ITALY

Mario Scartozzi

University of Cagliari
ITALY

Masaharu Seno

Okayama University
JAPAN

Hiroto Shibaguchi

Fukuoka University
JAPAN

Yi Shu

University of Kentucky
UNITED STATES

Xianzhou Song

Baylor College of Medicine
UNITED STATES

Sanjeev K. Srivastava

Mitchell Cancer Institute
UNITED STATES

Nilesh Talele

Massachusetts General Hospital
UNITED STATES

Prashant Thakkar

Cornell University Joan and Sanford I Weill Medical
College

Affiliated Cancer Hospital of Xiangya School of Medicine
(Central South University)
CHINA

Sunita Singh

Baylor College of Medicine
USA

GL Qiao

Massachusetts General Hospital, Harvard Medical School
USA

Alba de Jesús Kihn Alarcón

Liga Nacional Contra el Cáncer Guatemala & Instituto de
Cancerología (INCAN)
GUATEMALA

Sreenath Nair

St. Jude Children's Research Hospital
USA

Kamalika Mojumdar

The University of Texas MD Anderson Cancer Center
USA

Peeyush Goel

University of Pennsylvania
USA

Jing Zhang

The University of Texas MD Anderson Cancer Center
USA

Divya Ramchandani

Weill Cornell Medical College
USA

Xiaodong Li

The Third Affiliated Hospital of Soochow University &
Medical College, Soochow University
CHINA

Shuhui Liu

Icahn School of Medicine at Mount Sinai
USA

Shuhua Zheng

Nova Southeastern University
USA

Supreet Agarwal

National Cancer Institute, National Institute of Health
USA

UNITED STATES

Abul Usmani

Washington University School of Medicine

USA

TOP

Ophthalmology

Section Editor:**Khaled Ahmed Abdelrahman**

Magrabi Eye Center, Riyadh
SAUDI ARABIA

Melissa Barnett

University of California Davis
UNITED STATES

Mehmet Borazan

Mevlana University School of Medicine
TURKEY

Robert Chang

University of Illinois at Chicago College of Medicine
UNITED STATES

Zhengshan Chen

Moorfields Eye Hospital & UCL Institute of Ophthalmology
UNITED KINGDOM

Jaime Etxebarria

University Hospital Cruces
SPAIN

Suleyman Demircan

SBU Kayseri Training and Research Hospital
TURKEY

Dinesh Garg

Advanced Centre For Eyes, Ludhiana
INDIA

Jack Greiner

Harvard University
UNITED STATES

Lawrence Iu

University of Hong Kong
HONG KONG

Vishal Jhanji

The Chinese University of Hong Kong
HONG KONG

Bartlomiej Kaluzny

Collegium Medicum NCU
POLAND

Jui-Yang Lai

Chang Gung University
TAIWAN

Jacky Lee

Caritas Medical Centre

Juan Carlos Serna-Ojeda

Banco de Ojos y Tejidos de Aguascalientes
MEXICO

Michael Smolek

U. S. Army Aeromedical Research Laboratory
UNITED STATES

Fatih Turkcu

Dicle University School of Medicine
TURKEY

Edoardo Villani

University of Milan
ITALY

Kaili Wu

Sun Yat-Sen University
CHINA

Jason Yam

Chinese University of Hong Kong
HONG KONG

Gladys Ko

Texas A&M University
UNITED STATES

Yi Zhu

University of Miami Miller School of Medicine
UNITED STATES

Daniele Veritti

University of Udine
Italy

Valentina Sarao

Department of Medicine-Ophthalmology
University of Udine
Italy

Shisong Rong

Department of Ophthalmology, Harvard Medical School,
Massachusetts Eyes and Ear Infirmary
USA

Su-Ho Lim

Daegu Veterans Health Service Medical Center
SOUTH KOREA

Liujiang Song

Gene Therapy Center & Department of Ophthalmology,
University of North Carolina at Chapel Hill
USA

HONG KONG

Marcella Nebbioso

Sapienza University of Rome
ITALY

Iok-Hou Pang

University of North Texas Health Science Center
UNITED STATES

Choul Yong Park

Dongguk University Ilsan Hospital
KOREA, REPUBLIC OF

Alparslan Şahin

Dicle University School Of Medicine
TURKEY

Rosa E. Alvarado-Villacorta

Asociación para evitar la ceguera en México
MEXICO

Fehim Esen

Istanbul Medeniyet University School of Medicine
TURKEY

Michele Figus

University of Pisa
ITALY

Ahmad Samir Alfaar

Faculty of Medicine, University of Leipzig
GERMANY

Jiaxing Wang

Emory Eye Center
USA

TOP

[Oral Medicine](#)

Section Editor:**Li Wu Zheng**

University of Hong Kong
CHINA

Tomoyuki Kawase

Niigata University
JAPAN

Mustafa Rasid Toksoz

Yildirim Beyazit University
TURKEY

Priscila Lie Tobouti

Universidade Ibirapuera
BRAZIL

Cheng-Chia Yu

Chung Shan Medical University
TAIWAN

Gang Zhang

University of California San Diego
UNITED STATES

Elena M. Varoni

University of Milan
ITALY

Xu Qian

School of Dental Medicine, Tufts University
USA

TOP

Hitesh Vij

Henry M. Goldman School of Dental Medicine
USA

Shahabe Saquib

College of Dentistry, King Khalid University
SAUDI ARABIA

Huolong Liu

Department of Chemical Engineering, University of
Massachusetts Lowell
USA

Xianrui Yang

Department of Developmental Biology, Harvard School of
Dental Medicine, Harvard University
USA

Jun-Beom Park

The Catholic University of Korea
REPUBLIC OF KOREA

Shereen Ali

Oral Medicine & Periodontology Department, Faculty of
Dentistry, Cairo University
EGYPT

Bhuvanewari Gurumurthy

Colgate-Palmolive Company
USA

Otorhinolaryngology**Shih-Han Hung**

Taipei Medical University
TAIWAN

Yike Li

Vanderbilt University
UNITED STATES

Bülent Serbetcioglu

Istanbul Medipol University
TURKEY

Jagdeep Thakur

Indira Gandhi Medical College
INDIA

Wen-Hung Wang

Cathay General Hospital and Fu Jen Catholic University
Hospital
TAIWAN

Yushan Zhang

Taipei Medical University
TAIWAN

Massimo Fusconi

Universita degli Studi di Roma La Sapienza
ITALY

Jeng-Wen Chen

Cardinal Tien Hospital and Fu Jen Catholic University
TAIWAN

TOP

Palliative Care

Section Editor:

Eric Bush

Frederick Memorial Hospital

UNITED STATES

TOP

Pediatrics

Section Editor:**Khaled Saad**

Assiut University
EGYPT

Vasile Valeriu Lupu

Pediatrics Department, "Grigore T. Popa" University of
Medicine and Pharmacy
ROMANIA

Babak Abdinia

Tabriz University
IRAN

Girish Chandra Bhatt

All India Institute of Medical Sciences
INDIA

Maria Jose Carbonero Celis

Hospital Universitario Virgen Macarena
SPAIN

Elaine Alvaraenga De Almeida Carvalho

Universidade Federal de Minas Gerais
BRAZIL

Anderson Collier

University of Mississippi Medical Center
UNITED STATES

Kirsty Donald

University of Cape Town
SOUTH AFRICA

Manal Elshmaa

National Research Centre
EGYPT

Mohamed Fahmy

Al Azher University
EGYPT

Tamer Hassan

Zagazig University
EGYPT

Jing Liu

The Army General Hospital of the Chinese PLA
CHINA

TOP

Alexandros Makis

University Of Ioannina
GREECE

Oana Marginean

University of Medicine and Pharmacy Tirgu Mures
ROMANIA

Miguel Muñoz

Virgen del Rocio University Hospital
SPAIN

Stefano Nobile

Ospedale "G. Salesi" di Ancona
ITALY

Peter Olbrich

Hospital virgen del Rocio Seville
SPAIN

Stuart Polisner

Retired
UNITED STATES

Bernhard Resch

Medical University of Graz
AUSTRIA

Stefano Sartori

Universita degli Studi di Padova Dipartimento di Salute
della Donna e del Bambino
ITALY

Umang G. Thakkar

Institute of Kidney Diseases & Research Centre
INDIA

Khaled Saad

Madinah National Hospital
SAUDI ARABIA

Mohammad Reza Amiri

Mashhad University of Medical Sciences, Ghaem Hospital
IRAN

Deepa Vasireddy

Pediatric Group of Acadiana
USA

Silvana Alves Pereira

Universidade Federal do Rio Grande do Norte
BRAZIL

Li-Wei Chou

China Medical University Hospital
TAIWAN

Ilke Coskun Benlidayi

Cukurova University
TURKEY

Dong Rak Kwon

Daegu Catholic University Medical Center
KOREA, REPUBLIC OF

Daniel López López

Universidade da Coruña
SPAIN

Yvonne Lucero

Hines VA Hospital
UNITED STATES

Rong Luo

Sichuan University
CHINA

Shamekh Mohamed El-Shamy

Cairo University
EGYPT

Romain Perera

University of Colombo
SRI LANKA

Shirley S.M. Fong

University of Hong Kong
HONG KONG

Anis Jellad

University of Monastir
TUNISIA

Vijai Prakash Sharma

King George Medical University Lucknow
INDIA

Konstantinos Volaklis

Technical University of Munich
GERMANY

Chueh-Hung Wu

National Taiwan University Hospital
TAIWAN

Guang Yue

Kessler Foundation
UNITED STATES

Elena Marques-Sule

University of Valencia
SPAIN

Wei-Yen Hsu

National Chung Cheng University
TAIWAN

Gohei Kato

Tokyo Professional University of Health Science
JAPAN

Chang Ho Hwang

Chungnam National University Sejong Hospital, College of
Medicine, Chungnam National University
SOUTH KOREA

Manal Kamel Youssef

Cairo University
EGYPT

Sahar Abdalbary

Nahda University
EGYPT

Mariano Gacto-Sánchez

Department of Physical Therapy, EUSES University of
Girona
SPAIN

Walid Kamal Abdelbasset

Department of Health and Rehabilitation Sciences, College
of Applied Medical Sciences, Prince Sattam bin Abdulaziz
University
SAUDI ARABIA
and
Department of Physical Therapy, Kasr Al-Aini Hospital,
Cairo University
EGYPT

Farooq Rathore

Bahria University Medical and Dental College
PAKISTAN

Rubén Sánchez-Gómez

Faculty of Nursing, Physiotherapy and
Podiatry, Complutense University
SPAIN

D. Rodríguez Sanz

Universidad Complutense de Madrid
SPAIN

TOP

Primary Care

Mahesh Gajendran,
Texas Tech University
UNITED STATES

Leonardo Gilardi
OSECAC, ARGENTINA

Kukuh Noertjojo
Evidence-Based Practice Group, Clinical Services,
WorkSafeBC
CANADA

Kiran Panuganti
Texas Health Presbyterian Hospital
USA

Eric Grig Kirschner
Faculdade de Medicina São Leopoldo Mandic and
Secretaria Municipal de Saúde de Campinas
BRAZIL

Vijayadershan Muppidi
Indiana University Health
USA

TOP

Psychology

Carolina Diaz-Piedra
University of Granada
SPAIN

Kevin R. Harris
Austin Peay State University
UNITED STATES

Peter J. Mclaughlin
Edinboro University of Pennsylvania
UNITED STATES

Urs Nater
University of Marburg
GERMANY

Whitney Scott
King's College London
UNITED KINGDOM

Trudie Somberg
Albert Einstein Medical Center
UNITED STATES

James H. Waters
Clinical & Forensic Psychology & Neuropsychology
UNITED STATES

TOP

Public Health

Section Editor:**Ediriweera Desapriya**

Vancouver General Hospital, and Centre for Clinical
Epidemiology and Evaluation
CANADA

Vincent Barba

Rutgers University
UNITED STATES

Jongwha Chang

University of Texas
UNITED STATES

Bishnu Prasad Coulagai

Tribhuvan University
NEPAL

Ediriweera Desapriya

The University of British Columbia
CANADA

Keshab Deuba

Karolinska Institutet
SWEDEN

Lars Hagander

Lund University
SWEDEN

Jinhai Huo

The University of Texas MD Anderson Cancer Center
UNITED STATES

Angela N Johnson

Texas Tech University
UNITED STATES

Roman Leischik

University Witten/Herdecke
GERMANY

Tan Li

Florida International University
UNITED STATES

Yulan Liang

University System of Maryland
UNITED STATES

Yungang Liu

Southern Medical University
CHINA

TOP

Luis Mauricio Pinet Peralta

University of Maryland Baltimore County
UNITED STATES

Qing Wu

University of Nevada, Las Vegas
UNITED STATES

Feng Qiong Zhou

Ottawa Hospital Research Institution
CANADA

Ziyuan Zhou

Third Military Medical University
CHINA

Motasem Hamdan

Al-Quds University
PALESTINE

Hoang Van Minh

Hanoi University of Public Health
VIETNAM

Yaguang Wei

Department of Environmental Health, Harvard University
USA

Fitsum Sebsibe Teni

Karolinska Institutet
SWEDEN

Kazuki Ide

Uehiro Research Division for iPS Cell Ethics, Center for
iPS Cell Research and Application (CiRA), Kyoto
University
JAPAN

Yasmine Al Hatimy

Sultan Qaboos University Hospital (SQU)
OMAN

Hasanain Faisal Ghazi

College of Nursing, Al-Bayan University
IRAQ

Raymond N. Kuo

Institute of Health Policy and Management, College of
Public Health, National Taiwan University
TAIWAN

Pulmonology

Section Editor:**Davor Plavec**

Srebrnjak Children's Hospital
CROATIA

Fu-Tsai Chung

Chang Gung Memorial Hospital Linkou Branch
TAIWAN

Levent Dalar

Istanbul Bilim University
TURKEY

Esteban Gabazza

Mie University
JAPAN

Davor Plavec

Srebrnjak Children's Hospital
CROATIA

Takeshi Saraya

Kyorin University School of Medicine
JAPAN

TOP

Khaled Saleh

Cleveland Clinic Abu Dhabi
UNITED ARAB EMIRATES

Nesreen E. Morsy

Pulmonary Medicine Department, Mansoura University
EGYPT

Naga Sirikonda

Good Samaritan Hospital, SSM Health
USA

Rahul Khosla

Department of Pulmonary and Critical Care, Veterans
Affairs Medical Center
USA

Askin Gülsen

University of Lübeck
GERMANY

Shreedhar Kulkarni

Department of Medicine, Ochsner-LSU Health
USA

Radiology

Section Editor:**Neeraj Lalwani**

Virginia Commonwealth University Health
UNITED STATES

Dwight M. Achong

James A. Haley Veterans' Hospital
UNITED STATES

Rani Al-Senan

Columbia University Medical Center
UNITED STATES

Majid Assadi

Bushehr University of Medical Sciences
IRAN

Lawrence R. Bigongiari

Retired
UNITED STATES

Yong Eun Chung

Yonsei University
KOREA, REPUBLIC OF

Ramya Dhandapani

Royal Liverpool University Hospital
UNITED KINGDOM

George Kyrgias

University of Thessaly
GREECE

Ismaheel Lawal

University of Pretoria
SOUTH AFRICA

Peipeng Liang

Capital Medical University
CHINA

Yiyang Liu

NJMS, Rutgers University
UNITED STATES

Pierleone Lucatelli

University of Siena
ITALY

Takayuki Masui

Seirei Hamamatsu General Hospital
JAPAN

Kavindra Nath

University of Pennsylvania

Orazio Schillaci

University of Rome Tor Vergata
ITALY

Alberto Stephano Tagliafico

University Of Genova
ITALY

Kiran Talekar

Thomas Jefferson University
UNITED STATES

Michael Albert Thomas

UCLA Geffen School of Medicine
UNITED STATES

Ioannis Tsalafoutas

General Anticancer-Oncology Hospital of Athens "Agios
Savvas"
GREECE

Weiwu Yao

Shanghai Jiaotong University
CHINA

Katsuya Yoshida

Asahi General Hospital
JAPAN

JianJun Yuan

Henan Province people's Hospital
CHINA

Saad Zakko

Retired
UNITED KINGDOM

Heye Zhang

Shenzhen Institutes of Advanced Technology
CHINA

Zhuoli Zhang

Northwest University
UNITED STATES

Meihua Zhu

Oregon Health & Science University
UNITED STATES

Hongming Zhuang

Children's Hospital of Philadelphia University of
Pennsylvania
UNITED STATES

Ali Gholamrezanezhad

UNITED STATES

Barbara Palumbo

Universita degli Studi di Perugia

ITALY

Hyunjin Park

Sungkyunkwan University

KOREA

Sachin S. Saboo

University of Texas Southwestern Medical Center, Dallas

UNITED STATES

Keck School of Medicine, University of Southern California

UNITED STATES

Shazia Fatima

Department of Nuclear Medicine, Nuclear Medicine,
Oncology and Radiotherapy Institute (NORI)

PAKISTAN

Mina Hanna

UT Health Science Center/McGovern Medical School

USA

Patricia Bozzetto Ambrosi

Independent Academic Researcher and Lecturer

FRANCE

TOP

Rheumatology

Xiaofeng Cai

University of Oklahoma Health Sciences Center

UNITED STATES

Francesco Carubbi

Università of L'Aquila

ITALY

Elizabeth Chang

Phoenix VA Health Care Systems

UNITED STATES

Carlos Guillén-Astete

Ramon y Cajal University Hospital

SPAIN

Raouf Hajji

Sidi Bouzid Hospital

TUNISIA

Jenn-Haung Lai

Chang Gung Memorial Hospital Yunlin Branch

TAIWAN

TOP

Worawit Louthrenoo

Chiang Mai University

THAILAND

Samy Slimani

University of Batna

ALGERIA

Sinan Kardes

Istanbul University

TURKEY

Latika Gupta

Sanjay Gandhi Postgraduate Institute of Medical Sciences

INDIA

Emre Bilgin

Hacettepe University Faculty of Medicine, Division of
Rheumatology

TURKEY

Sports and Exercise Medicine

Section Editor:**Fergal Grace**

Federation University Australia
AUSTRALIA

Jochen Baumeister

University of Paderborn
GERMANY

Antonino Bianco

University Of Palermo
ITALIA

Rodrigo Bini

EsEFEx
BRAZIL

Xavier García-Massó

University of Valencia
SPAIN

Hyunsik Kang

Sungkyunkwan University
KOREA, REPUBLIC OF

Justin Keogh

Bond University
AUSTRALIA

Chunxiao Li

Nanyang Technological University
SINGAPORE

TOP

Jose Muyor

University of Almería
SPAIN

Antonio Paoli

University of Padova
ITALY

Massimo Sacchetti

University of Rome "Foro Italico"
ITALY

Weiyun Chun

University of Michigan
UNITED STATES

Atul Dwivedi

Department of Clinical & Basic Sciences, MEDICAL
COLLEGE OF HUBEI POLYTECHNIC UNIVERSITY
CHINA

Mohammed Nader Shalaby

Faculty of Physical Education, Suez Canal University
EGYPT

Bahattin Kerem Aydin

Selcuk University
TURKEY

Surgery

Section Editor:**Yan Li**Cleveland Clinic
USA**Section Editor:****Wen-Wei Sung**Chung Shan Medical University
TAIWAN**Suresh Agarwal**University of Wisconsin
UNITED STATES**Shefali Agrawal**Indraprastha Apollo Hospitals
INDIA**Mahmoud Abdelwahab Ali**Mansoura University
EGYPT**Akif Enes Arikan**Istanbul University
TURKEY**Wafi Attaallah**Marmara University
TURKEY**Goran Augustin**University of Zagreb and University Hospital Center
Zagreb
CROATIA**Adrian Billeter**University Of Heidelberg
GERMANY**Gerald Brandacher**Johns Hopkins University School of Medicine
UNITED STATES**Jakob Burcharth**Zealand University Hospital
DENMARK**Klaus Burkart**Arcus Sportklinik
GERMANY**Sheng Chen**Second affiliated hospital, school of medicine, zhejiang
university**Neil Merrett**Western Sydney University
AUSTRALIA**Pedro Moya**University General Hospital of Elche
SPAIN**Adrian Murillo**Instituto Tecnológico Y De Estudios Superiores De
Monterrey
MEXICO**Kelvin Ng**University of Hong Kong
HONG KONG**Theodossis Papavramidis**University of Athens
GREECE**Gianluca Pellino**Second University of Naples
ITALY**Henrik Petrowsky**University Hospital Zurich
SWITZERLAND**Eitan Podgaetz**University of Minnesota
UNITED STATES**Mihai Oltean**University of Gothenburg
SWEDEN**Andrea Ruzzenente**Universita degli Studi di Verona
ITALY**Marek Sierzega**Jagiellonian University Medical College
POLAND**Pedro Silva Vaz**Hospital Amato Lusitano - Unidade Local de Saúde de
Castelo Branco
PORTUGAL**Timucin Taner**Mayo Clinic
UNITED STATES**Serkan Teksöz**

CHINA

Xiao-Dong Chen

Sichuan Cancer Hospital
CHINA

Tan To Cheung

The University of Hong Kong
HONG KONG

Roberto Cirocchi

University of Perugia
ITALY

Valerio D'Orazi

Universita degli Studi di Roma La Sapienza
ITALY

Sameh Emile

Mansoura University
EGYPT

Evert Eriksson

Medical University of South Carolina
UNITED STATES

Sebastian Farr

Orthopedic Hospital Speising
AUSTRIA

Rama Rao Ganga

Cleveland Clinic Florida
UNITED STATES

Olimpio Galasso

University of Catanzaro "Magna Graecia"
ITALY

Ankush Gosain

University of Tennessee Health Science Center
UNITED STATES

Perbinder Grewal

Portsmouth Hospitals NHS Trust
UNITED KINGDOM

Jeff Halldorson

UC San Diego
UNITED STATES

Daniel A. Hashimoto

Massachusetts General Hospital
UNITED STATES

Jian-Kun Hu

Istanbul University
TURKEY

Papavramidis Theodosios

Aristotle University of Thessaloniki
GREECE

Alfonso Torquati

Rush University
UNITED STATES

Francisco Vaz-Guimaraes Filho

Baylor College of Medicine
UNITED STATES

Feng Yang

Huashan Hospital affiliated to Fudan University
CHINA

Steven Yule

Harvard Medical School
UNITED STATES

Kanhua Yin

Massachusetts General Hospital
UNITED STATES

Davide Castioni

"Magna Graecia" University of Catanzaro
ITALY

Jacopo Desiderio

St. Mary's Hospital of Terni
ITALY

Ahmed Shehta

Liver Transplantation Unit, Gastrointestinal Surgery
Center, College of Medicine, Mansoura University
EGYPT

Arjun Ballal

Ballals Healthcare
INDIA

Bo Liu

3rd Hospital of Hebei Medical University
CHINA

Selen Soyulu

Şehit Esra Köse Başaran Doğanşehir Devlet Hastanesi
TURKEY

Hyungju Kwon

Ewha Womans University
SOUTH KOREA

Sichuan University
CHINA

Ting-Shuo Huang
Chang Gung Memorial Hospital
TAIWAN

Calogero Iacono
University of Verona Medical School
ITALY

Marc Jeschke
U of T and Sunnybrook Health Sciences
CANADA

Maria Kapritsou
Hellenic Anticancer Institute "Saint Savvas" Hospital
GREECE

James Kellam
University of Texas Health Science Center McGovern
Medical School
UNITED STATES

Ji Soo Kim
Seoul National University College of Medicine
KOREA, REPUBLIC OF

Jin-Sung Kim
The Catholic University of Korea
KOREA, REPUBLIC OF

Jorg Kleeff
University of Liverpool
UNITED KINGDOM

Leonidas G. Koniaris
Indiana University
UNITED STATES

Zheng Li
Peking Union Medical College
CHINA

Song Liu
Universite Paris-Sud
FRANCE

Panagis M. Lykoudis
Royal Free London NHS Foundation Trust
UNITED KINGDOM

Giuseppe Malleo
University of Verona Hospital Trust
ITALY

Augusto Lauro
St. Orsola University Hospital
ITALY

Hyeun Sung Kim
Nanoori Hospital Gangnam
SOUTH KOREA

Ahmad Zaghal
Department of Surgery, American University of Beirut -
Medical Center
LEBANON

Guang-Xun Lin
Department of Orthopedics, The First Affiliated Hospital of
Xiamen University
CHINA

David Cory Adamson
Emory University School of Medicine
USA

Michail Mavros
University of Toronto
CANADA

John A. Santoshi
Department of Orthopaedics, All India Institute of Medical
Sciences
INDIA

Eric CH Lai
Department of Surgery, Pamela Youde Nethersole Eastern
Hospital
HONG KONG SAR

Luca Salvatore De Santo
Division of Cardiac Surgery and Transplant, AORN dei
Colli, V Monaldi Hospital, and of Cardiac Surgery,
University of Campania Luigi Vanvitelli
ITALY

Victor Volovici
Department of Neurosurgery and Center for Medical
Decision Making, Erasmus MC
NETHERLANDS

Waeel Hamouda
Cairo University
EGYPT

Johannes Mayr

University Children`s Hospital Basel
SWITZERLAND

TOP

Toxicology**Gokhan Cuce**

University of Necmettin Erbakan
TURKEY

Eleonore Fröhlich

Medical University of Graz
AUSTRIA

Goran Gajski

Institute for Medical Research and Occupational Health
CROATIA

Oliver Grundmann

University of Florida
UNITED STATES

Carlos Fernando Mello

Universidade Federal De Santa Maria
BRAZIL

Mihalis Panagiotidis

Heriot Watt University
SCOTLAND

Satyabrata Pany

University of Houston
UNITED STATES

TOP

Yax Thakkar

Research Institute For Fragrance Materials
USA

Miao Li

National Center of Toxicological Research, Food and Drug
Administration
USA

Wei Wu

Department of Toxicology, School of Public Health, Nanjing
Medical University
CHINA

Christopher H. So

Pharmaceutical Sciences, College of Pharmacy, Roseman
University of Health Sciences
USA

Mehmet Sonmez

Ankara City Hospital
TURKEY

Urology

Section Editor:**Giuseppe Lucarelli**

University of Bari
ITALY

Apul Goel

King George's Medical University
INDIA

Rohit Malik

University of Michigan
UNITED STATES

Vito Mancini

University of Foggia
ITALY

Hiroshi Miyamoto

Johns Hopkins University
UNITED STATES

Sakthivel Muniyan

University of Nebraska Medical Center
UNITED STATES

Pedro Fontes Oliveira

ICBAS-UP
PORTUGAL

Ran Pang

Guang An Men Hospital
CHINA

Jae Young Park

Korea University College of Medicine
KOREA, REPUBLIC OF

Masaki Shiota

Kyushu University
JAPAN

TOP

Shan Wang

UT Southwestern Medical Center
UNITED STATES

Wen-Wei Sung

Chung Shan Medical University Hospital
TAIWAN

Gian Maria Busetto

Sapienza Rome University Policlinico Umberto I
ITALY

Amjad Alwaal

Marshall University
USA

Chenchen (Isaac) Feng

Department of Urology, Huashan Hospital, Fudan
University
CHINA

Mohammed EISheemy

Cairo University
Egypt

Shu-Pin Huang

Department of Urology, Kaohsiung Medical University
TAIWAN

Matteo Balzarro

Azienda Ospedaliera Universitaria Integrata di Verona
ITALY

Mihai Dorin Vartolomei

George Emil Palade Univeristy of Medicine, Pharmacy,
Science and Technology from Târgu Mureş
ROMANIA

Parveen Kumar

The University of Alabama at Birmingham
USA

Women's Health**Rishein Gupta**

University of Texas at San Antonio

Venance Basil Kway

Hospital Central Dr. Ignacio Morones Prieto
MEXICO

TOP

Section Editor Profiles

Dr. Khaled Ahmed Abdelrahman, MD, FRCS

Ophthalmology



Khaled Ahmed Abdelrahman graduated from the Ains Shams University School of Medicine in Cairo, Egypt in 1990 and received a master's degree in Ophthalmology in 1995. He received his FRCS in Edinburgh in 2002. Dr. Abdelrahman served as the Chief of Cornea, External Eye Disease and Refractive Surgery and the Medical Director of Magrabi-Riyadh Center until May 2015. He served as a consultant in Suliman Al Habib, Olaya Medical Complex, and currently serves as a consultant at Dallah Hospital.

Dr. Abdelraham is a member of the International Society of Refractive Surgery (ISRS), a member of the American Academy of Ophthalmology (AAO), a member of the European Society of Cataract & Refractive Surgeon (ESCRS), member of the Middle East Africa Council of Ophthalmology (MEACO), member of Saudi Ophthalmology Society (SOS), member of Egyptian Ophthalmology Society (EOS) and also a reviewer in the Journal of Refractive Surgery and Journal of Medicine, a former visiting Professor in King Saud University and a Fellow of Royal College of Surgeons of Edinburgh. Dr. Abdelraham is also the representative of the International Society of Refractive Surgery in Saudi Arabia. He has over 30 years of experience and is a registered ophthalmology consultant in many countries, including the UK, Russia, Egypt, Saudi Arabia, Oman, and Kuwait.

TOP

Dr. Somchai Amornyotin, MD

Anesthesiology



Somchai Amornyotin graduated from the Faculty of Medicine Siriraj Hospital, Mahidol University in 1989. He became the staff of the Department of Anesthesiology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand in 1996. Until 2004 he became the associate professor of the Department of Anesthesiology, Faculty of Medicine Siriraj Hospital, Mahidol University. From 2005 until 2009 he was the chief of Anesthesiology Division of Siriraj GI Endoscopy Center, Faculty of Medicine Siriraj Hospital, Mahidol University. His first scientific paper was published in Thailand in 1999.

He has practiced anesthesia for gastrointestinal endoscopy since 2002. He was the committee of Siriraj Gastrointestinal Endoscopy Center, Faculty of Medicine Siriraj Hospital in 2005. More than 90 of his articles have been published in Thai and international medical journals. Dr. Amornyotin is a member and committee of the Royal College of Anesthesiologists of Thailand, the Gastroenterological Association of Thailand, and many scientific societies. He is the reviewer and editor of many international journals.

TOP

Dr. Gunjan Arora, Ph.D.

Clinical Immunology



Gunjan Arora graduated from the University of Delhi and completed research at CSIR-Institute of Genomics and Integrative Biology, New Delhi, India. Dr. Arora's background is in infectious disease and he worked on a wide number of bacterial and parasitic pathogens. Dr. Arora performed his postdoctoral research at Dr. Eric Long's group at NIAID, NIH where he showed the role of natural killer cell-mediated antibody-dependent cellular cytotoxicity against the malaria parasite. Dr. Arora has 10 years of post-PhD experience in global health, immunology, and microbiology. He has 26 publications in peer-reviewed journals about published four book chapters. In the past, he has served as a review for several journals

including *Frontiers*, *MDPI*, *Nature Press*, *BMC Microbiology*, and more. Currently, he is working on the immunopathology of Lyme disease and malaria at Yale University.

TOP

Dr. Abdelouahab Bellou, MD, MSc, Ph.D.

Critical Care and Emergency Medicine

Abdelouahab Bellou is Professor of Therapeutics and Emergency Medicine, MD, MSc, Ph.D. (University of Rennes 1, France), Adjunct Professor at the Department of Emergency Medicine, Wayne State University. President of the HealthCare Network & Research Innovation Institute, LLC, USA. Former chair of the Section of Geriatric Emergency Medicine of the European Society for Emergency Medicine (EUSEM) and member of the Research Committee of EUSEM. Founder of the Global Network on Emergency Medicine. Prof. Bellou has been committed to the advancement of emergency medicine. He served as a former president of the European Society for Emergency Medicine; he was involved in the development of EM in Europe. Prof. Bellou's expertise areas include healthcare facility designing, research and innovation, clinical immunology and allergy, emergency medicine education, geriatric emergency medicine, acute cardiac care, ED operations improvement, ED design, and layout. He is also a basic science researcher working on the role of potassium voltage-dependent channels in anaphylactic shock.

TOP

Dr. Eric Bush, MD

Palliative Care

Eric Bush is Board Certified in Internal Medicine, Addiction Medicine and Hospice & Palliative Medicine. He currently lives in Maryland and has been practicing medicine for 17 years. He graduated from the State University of New York at Buffalo in 2004, as a Doctor of Medicine. Prior to this, he attended the State University of New York at Buffalo School of Pharmacy receiving a Bachelor of Science degree in 1994. In 1996, Dr. Bush received a Master's in Business Administration from the State University New York at Buffalo School of Management.



Dr. Bush's healthcare career started in 1988 as a combat medic (& later LPN) in the US Army Reserve. After completing pharmacy school, he practiced as a pharmacist with Roswell Park Cancer Institute in Buffalo, NY; completed Internal Medicine Residency with SUNY Buffalo & subsequently worked as a Fellow and Attending Physician for the Pain and Palliative Care Services at the National Institute of Health in Bethesda, MD; as Medical Director for Capital Caring in Washington, D.C. Medical Director of Hospice with Gilchrist and a Geriatrics Attending Physician at Greater Baltimore Medical Center. Dr. Bush previously served as Medical Director of Frederick Memorial Hospital Pain and Supportive Care Services (obtaining Joint Commission Certification for the Inpatient Palliative Care Service), and Medical Director of Hospice of Frederick County which received national recognition during his tenure in 2015 with the Circle of Life Citation of Honor for Excellence in Hospice and Palliative Care. He also served as the Chairman of the Frederick Memorial Hospital Ethics Committee. Dr. Bush currently serves as an Academic Editor and is the Section Chief for Palliative Care for the online journal Medicine.

Since 2016, Dr. Bush has served (& continues to do so) as the Chief Medical Officer for Hospice of the Chesapeake & Chesapeake Supportive Care located in Pasadena, Maryland. The organization is a community-based non-profit that serves 1200 seriously ill residents daily in Maryland. The organization attained The Joint Commission's Certification in Community Based Palliative Care (one of only 54 programs nationally with this distinction). Dr. Bush also serves as our organization's Occupational Health Physician and has helped our 300 plus employees navigate the ongoing Covid 19 pandemic. Dr. Bush is also an entrepreneur and the CEO for Hospiceandpalliativeboardreview.com

TOP

Dr. Ovidiu Constantin Baltatu, MD, Ph.D.

Cardiovascular



Ovidiu Constantin Baltatu has enjoyed more than 20 years as an MD/Ph.D. scientist, during which time he has run interdisciplinary translational research teams in both academia and the pharmaceutical industry. He has actively contributed to discoveries in areas of the physiopathology of diseases and new diagnosis, therapeutic, and prevention strategies. Dr. Baltatu is currently affiliated with the Center of Innovation, Technology, and Education (CITE) at Anhembi Morumbi University, Laureate International Universities.

TOP

Dr. Lindsay Cormier, Ph.D.

Drugs and Devices

Lindsay Cormier is an Associate Professor at Eastern Kentucky University and holds a Ph.D. in molecular and biomedical pharmacology and a master's in public health. Her biomedical research laboratory investigates the synthesis and development of novel oncological drugs for cancer diagnosis and treatment. In collaboration, Dr. Cormier has patented cutting-edge pharmaceutical targeting compounds towards reproductive cancers. Her research also investigates the use of hospital protocols related to public health issues including transparency, disease reporting



and tracking, and pharmaceutical use.

TOP

Dr. Ediriweera Desapriya, Ph.D.

Public Health



Ediriweera Desapriya is a research associate in the Emergency Medicine department at the University of British Columbia. Dr. Desapriya received his Ph.D. at the University of Tsukuba and previously worked in Pediatrics at UBC as a research associate and as a professor at the Institute of Social Science University of Tsukuba.

Dr. Desapriya is an internationally recognized researcher in injury prevention with his most notable research involving indicators of automobile accidents and traffic legislation. Dr. Desapriya has received several grants and awards, including but not limited to the Canadian Institute of Health Research-Emergency Department survey on drug-impaired drivers, the

Saskatchewan Pediatric Injury Prevention community grant, the Auto 21 Grant Networks of Centers of Excellence, and the Marquis Who's Who in Medicine and Health Care.

Dr. Desapriya has published more than 100 peer-reviewed research articles, 4 chapters, and a book. He is an Editorial Board member of the *World Journal of Clinical Pediatrics* and *Advances in Automobile Engineering*, a contributing editor for *Global Cardiovascular Health Community*, and a member of the *British Medical Journal's* online forum. Dr. Desapriya is also a member of the Canadian Association for Road Safety Professionals and a member of the Canadian Council of Motor Transport.

TOP

Dr. Jianxun Ding, Ph.D.

Drugs and Devices

Oncology



Jianxun Ding is a professor at Changchun Institute of Applied Chemistry (CIAC), Chinese Academy of Sciences (CAS), P. R. China. He received his B.S. degree from the University of Science and Technology of China in 2007 and obtained his Ph.D. degree at CIAC, CAS, in 2013 under the supervision of Prof. Xuesi Chen. From 2017–2019, he worked with Prof. Omid C. Farokhzad and Prof. Jinjun Shi from Brigham and Women's Hospital, Harvard Medical School, as a postdoctoral research fellow. His research focuses on the synthesis of functional biodegradable polymers, the development of bioresponsive polymer platforms for controlled drug delivery, the exploitation of polymer-based adjuvants for immunotherapy, and

the preparation of polymer scaffolds for regenerative medicine. Dr. Ding has published more than 120 academic articles in mainstream journals, including *Advanced Materials*, *Progress in Polymer Science*, *Nano Today*, *Advanced Functional Materials*, *ACS Nano*, *Trends in Biotechnology*, *Nature Communications*, *Nano Letters*, *Biomaterials*, *Science Bulletin*, *Journal of Controlled Release*, with over 6,500 citations. He also serves as an Associate Editor of *Frontiers in Biotechnology and Bioengineering*, as Editorial Board Members of *Polymers*, *Molecules*, *Pharmaceutics*, *PLoS ONE*, and *Current Pharmaceutical Design*.

TOP

Dr. Lydia Eccersley, Ph.D.

Hematology



Lydia Eccersley is a Consultant Haematologist at St Bartholomew's Hospital in London, UK, where she specializes in Haematological malignancies. Dr. Eccersley completed her general hematology training at Hammersmith and Royal Free Hospitals in London and completed a Ph.D. at Imperial College London, on a mechanism by which EBV promotes lymphoma development.

TOP

Dr. Dennis Enix, MBA, DC

Complementary and Alternative Medicine



Dennis Enix, MBA, DC is a musculoskeletal research scientist and former Professor of Research at Logan University in Chesterfield, USA, and a former manufacturing engineer in the aerospace and defense industry. Dr. Enix's research focuses on spinal biomechanics and anatomical research. He has taught courses in Research Methodology, Information Literacy, Anatomy and Physiology, and Clinical Methodology. Dr. Enix completed his Doctoral degree in chiropractic medicine at Logan University and a Fellowship in Rehabilitation Science at the Southern California University of Health Sciences and a Master's Degree in Business Administration from Webster University.

Dr. Enix is a member of Sigma Xi, the Scientific Honor Society, and the North American Spine Society and serves on its Research Council and Clinical Practice Guideline Committee and has co-authored several guidelines and served on several International Delphi panels. Dr. Enix is the Section Editor for complementary and alternative medicine for the *Journal Medicine*, and on the editorial board of the North American Spine Society journal *SpineLine*, and the journal *Topics in Integrative Health Care* and is a reviewer for multiple journals and textbooks. He has authored numerous scientific publications in *The Spine Journal*, *Clinical Anatomy*, *Physical Medicine & Rehabilitation*, *Annals of Anatomy*, *Chiropractic & Manual Therapies*, *Journal of Chiropractic Medicine*, and others and received several federal and private research grants and multiple research awards at national and international conferences.

TOP

Dr. Marcello Iriti, Ph.D.

Nutrition



Marcello Iriti has been studying nutraceuticals, functional foods, and essential oils relevant for human health, focusing on their preclinical (*in vitro/in vivo*) and in human pharmacological activities. He has been investigating the health-promoting effects of the traditional Mediterranean diet as well as the ethnopharmacology of herbal remedies of traditional healing systems. Dr. Iriti is a member of the Asian Council of Science Editors and Society of African Journal Editors, a founding member of the Italian Society of Environmental Medicine, a member of the Working Group 'Pharmacognosy and Phytotherapy' of the Italian Pharmacological Society. He holds the main patent for 'Compositions Comprising Rutin

Useful for the Treatment of Tumors Resistant to Chemotherapy' (WO2015036875A1; US20160213698; US9757405B2; EP3043821).

TOP

Dr. Nikhil Jain, Ph.D.

Infectious Diseases



Nikhil Jain completed his Ph.D. in Biochemistry from the Indian Institute of Technology, Kanpur. During his postdoctoral research at Michigan State University and Baylor College of Medicine, he studied the structural basis of Ribosome biogenesis in prokaryotes. At present, he is working as a staff scientist at St. Jude Children's Research Hospital in Memphis. He has experience in working in the diverse biomedical field including Microbial genetics, structural biology, and Biochemistry.

TOP

Dr. Sinan Kardeş, MD

Rheumatology

Sinan Kardeş is an Associate Professor at the Istanbul Faculty of Medicine. He received his Doctor of Medicine degree from Marmara School of Medicine in 2013. Dr. Kardeş completed his medical ecology and hydroclimatology residency at Istanbul Faculty of Medicine and he completed his residency training in 2017.

Dr. Kardeş is a member of the International Society of Medical Hydrology and Climatology (ISMH), International Society of Biometeorology (ISB), Society of Medical Ecology, and Hydroclimatology Specialists (SMEHS), Turkish Society of Spa Medicine and Balneology, and Turkish League Against Rheumatism (TLAR). He has research interests



in rheumatic and musculoskeletal diseases, exercise, balneotherapy, and randomized controlled trials.

TOP

Dr. Neeraj Lalwani, MD, DABR, FSAR

Radiology



Neeraj Lalwani is an American Board-Certified radiologist working as an Associate Professor of Radiology at VCU School of Medicine, as well as a consultant in the Department of Radiology at VCU Health, Richmond, Virginia. Before joining VCU, he was an Associate Professor of Radiology at Wake Forest University, North Carolina, and Assistant Professor of Radiology and director of Gastrointestinal Imaging at the University of Washington, Seattle.

Born in India, Dr. Lalwani has completed his Abdominal Imaging and Body MRI Fellowships at the University of Texas Health Sciences Centre, San Antonio. He is a recognized and passionate educator in radiology who has a particular interest in pelvic MRI, oncology, gastrointestinal and hepatobiliary imaging.

Dr. Lalwani is an established academician and researcher in radiology and has received the most coveted American Roentgen Ray Society's Figley Fellowship award (2019) and the Radiological Society of North America's Honored Educator award (2020). He has published numerous papers in highly influential journals and has presented numerous invited talks, oral presentations, and educational exhibits at national and international conferences, and won numerous prestigious accolades.

TOP

Dr. Yan Li, MD

Immunology

Surgery



Yan Li worked as a Staff and Research Leader in Colorectal Surgery of Digestive Disease and Surgery Institute in Cleveland Clinic and Assistant Professor in the School of Medicine at Case Western Reserve University in Cleveland, Ohio. He is a resourceful and dedicated medical professional, investigator, and educator in the domain of Medicine, Immunotherapy, Oncology therapy, and Regenerative medicine with 20 years of cumulative direct and indirect patient care as well as 15 years of progressive Clinical and Translational research experiences.

Dr. Li was presented with the Keith Rainin Foundation Synergy Award. He attributes his

professional successes to his openness to collaborations. He maintains his professional affiliation with the American Professional Immunologists and the American Heart Association.

TOP

Professor Dan Lipsker, MD

Dermatology

Dan Lipsker is Professor of Dermatology at the University of Strasbourg, France and he works as Dermatologists in the Clinique Dermatologique des Hôpitaux Universitaires de Strasbourg. He is interested in the whole spectrum of clinical dermatology and dermatopathology. He has senior editing activities in dermatology and internal medicine Journals and has written and/or edited numerous books, among which the major French Textbook of Dermatology and the leading textbook on Clinical Examination and diagnosis in Dermatology. He has worked and published in many fields, and his main interests include diagnostic reasoning and morphologic approach to skin diseases, skin manifestations of internal diseases, autoinflammatory diseases and the Schnitzler syndrome, connective tissue diseases, Lyme borreliosis, and melanoma epidemiology.

TOP

Dr. Giuseppe Lucarelli, MD, Ph.D.

Urology



Giuseppe Lucarelli currently works as Assistant Professor of Urology at the Department of Emergency and Organ Transplantation, University of Bari (Italy). Dr. Lucarelli is a clinician-scientist, urologist, and transplant surgeon, and his primary research interests are in urologic oncology and kidney transplantation. Dr. Lucarelli has served as an author on over 200 publications.

TOP

Dr. Gaurav Malhotra, MBBS, DRM, DNB

Endocrinology



Gaurav Malhotra is a National Board Certified Nuclear Medicine Physician and Professor of Nuclear Medicine at Homi Bhabha National Institute of the Department of Atomic Energy in India. For the last two decades, he has been working at the Radiation Medicine Centre of Bhabha Atomic Research Centre, where he has been managing thyroid clinics, diagnostic nuclear medicine scans, and targeted therapies. He is a National Medical Council recognized postgraduate teacher, thesis guide, examiner, and assessor for MD nuclear medicine courses in India. He has numerous publications and book chapters in preferred journals and

serves on the editorial board of *Clinical Nuclear Medicine* journal of the USA. His special interests and ongoing clinical research are focused on thyroid disorders, adrenal tumors including paragangliomas, pituitary tumors, other endocrine malignancies, ectopic Cushing's syndromes, and oncogenic osteomalacia.

TOP

Dr. Antonio Palazón-Bru, Ph.D.

Cardiovascular

Epidemiology



Prof. Palazón-Bru received his undergraduate and master's degree in Mathematics from the University of Alicante (Spain), and in Statistics from the Miguel Hernández University (Spain); and his master's degree in Public Health from the Miguel Hernández University. After that, he obtained his Ph.D. in Clinical Research from the Miguel Hernández University and in Applied Mathematics from the University of Alicante. He joined the Department of Clinical Medicine at the Miguel Hernández University in 2016, and he has taught in the undergraduate and master degree and doctorate programs. His research has focused on predictive models, public health, cardiovascular risk, clinical research methodology, systematic reviews, and

clinical trials. He serves as an Academic Editor for *Medicine*, *PLoS One*, and *PeerJ*, and he has placed in the top 1% of reviewers on Publons global reviewer database from 2017 to 2019.

TOP

Dr. Parag Parekh, Ph.D.

Diagnostic Medicine and Pathology

Parag Parekh received his Ph.D. in Chemistry from the University of Florida at Gainesville. He trained at the interface of the two disciplines as a Chemical Biologist and a Bioanalytical Chemist with a particular focus on generating aptamer probes for varied applications. He was a postdoctoral fellow at the Department of Pathology and Genomic Medicine at Houston Methodist Research Institute and later joined as Research Scientist at the Department of Endocrine Neoplasia and Hormonal Disorders at the MD Anderson Cancer Center. Subsequently, he joined the Baylor College of Medicine/Texas Children's Hospital as a Senior Research Scientist in 2019. Dr. Parekh joined *Medicine* in 2016 and handles papers related to Diagnostic Medicine and Pathology.

TOP

Professor Davor Plavec, MD, MSc, Ph.D

Pulmonology

Davor Plavec leads Research Department at Srebrnjak Children's Hospital. His professional training consisted of Specialist training in Occupational Medicine (Institute for Medical Research and Occupational Health, Zagreb, 2001-04) and successive appointments at the same institution as Senior Scientist and Research Director, and



Specialist (2004-05). During the preceding period, he was awarded M.D. (1987), M.Sc. (1991), and Ph.D. (1999) at the Medical School University of Zagreb. After completing his clinical specialist training, he was promoted to the position of Assist. Professor in 2009, which was followed by an Assoc.Professor in 2014 and Full Professor position at the Medical School University JJ Strossmayer, Osijek, Croatia. He is also teaching at several other faculties in Croatia. He also finished Specialist training in Sports Medicine (2011-13).

His research has focused upon the origins and natural history of asthma and allergy across the life-course, with an emphasis on prevention and translation for patient benefit. His research findings are of great practical significance and have informed and changed national and international guidelines on asthma prevention and management. His studies in food allergy substantially impacted clinical practice. His discovery that IgE-response to peanut allergen Ara h 2 is much more predictive of true peanut allergy than standard tests using whole allergen extract marked the start of the component-resolved diagnostics as the new gold standard in clinical practice.

Of merit is his recent pioneering research in the emerging field of biomarkers of diagnosis and control of asthma and COPD: the role of urates in exhaled breath condensate, fractional exhaled breath temperature, and non-invasive lung function diagnostics in small children. His research was funded by several EU (FP6, FP7, HORIZON 2020), national and investigator-initiated grants. He published > 250 publications (> 120 in WoS) with > 2000 citations.

He served for several terms as a Board Member of several professional societies (Croatian Respiratory Society, Croatian Society for Allergy and Clinical Immunology, Croatian Society for Sports Medicine, Croatian Toxicology Society) and is a member of EAACI and ERS.

From 2000-2008 he was acting as Managing Editor of the Croatian edition of JAMA. Acting as Academic editor in Medicine Journal (from 2018) and PLOS ONE Journal (from 2018). He is acting as a reviewer for >20 peer review journals, being rewarded the Top reviewer award by Publons (WoS) in Clinical Medicine and Cross-Field for 2018 and 2019.

TOP

Dr. Christine Pocha, MD, Ph.D., MPH, FAASLD

Gastroenterology and Hepatology



Christine Pocha, MD is a board-certified gastroenterologist and transplant hepatologist at Avera Liver Center & Transplant Institute. She holds an appointment as Associate Professor of Medicine at the University of South Dakota. Dr. Pocha completed a Ph.D. in Clinical Pharmacology and an MPH in Clinical Epidemiology at the University of Massachusetts. Her main research and clinic interests include alcoholic and non-alcoholic liver disease, complications of cirrhosis, and hepatocellular cancer. She has presented at national and international meetings and published extensively. She has spearheaded many clinical trials particularly on liver cancer as well as large epidemiology studies. Dr. Pocha earned her

medical degree from Friedrich-Schiller-University in Jena, Germany. She completed a residency in internal medicine, subspecialty training in gastroenterology and hepatology including liver transplant at the same university. After further residency training in the U.S. Dr. Pocha has worked at liver transplant centers in the U.S., Germany, and Switzerland. She proudly holds privileges as Honorary Consultant at the Department of Hepatology at King's College in London and goes there as often as time allows. In 2016, she accepted the position as Director of Hepatology and Medical Director of Liver Transplant at Avera. Dr. Pocha was awarded a fellowship to the American Association of the Study of

Liver Disease (AASLD). She serves as a chair of the scientific review committee and board member of educational subcommittees for AASLD. She is a member of the European Association for the Study of the Liver (EASL) as well as a primary reviewer at the UNOS National Liver Review Board. She serves on the editorial board as well as an expert reviewer for many GI/Hepatology journals.

TOP

Dr. Khaled Saad, MSc, Ph.D.

Pediatrics



Khaled Saad graduated from Assiut University's programs in Medicine and Surgery in 1997, and he obtained a master's degree (MSc) in Pediatrics in 2003. After that, he joined the Pediatrics Department, at Assiut University, as a staff member teaching pediatrics for medical students and postgraduates. In 2009, he received a Ph.D. degree in clinical pediatrics. He is a professor in the Pediatrics and pediatric neurology, Department at the Assiut University Children's Hospital, the largest pediatric medical center in Upper Egypt, a teaching hospital with more than 550 beds that provides primary and tertiary care for children in all governorates in Upper Egypt. He has a considerable number of international publications (82 publications) plus three book chapters. Prof. Khaled is a section academic editor in 5 journals and an editorial board member of 48 international medical journals in the fields of pediatrics

and general medicine. He is a referee in 150 international medical journals.

TOP

Prof. Dr. rer. nat. Oliver Schildgen

Infectious Diseases



Oliver Schildgen received his Dr. rer. nat. (Ph.D.) from the University of Essen. He currently serves as the Head of Molecular Pathology Unit in the Institute of Pathology, Hospital of the Private University Witten/Herdecke. Prof. Dr. Schildgen has authored 190 publications. His primary field of research is medical virology.

Prof. Dr. Schildgen is a member of several scientific societies including the German Society for Virology, the European Society for Clinical Virology, the Paul Ehrlich Gesellschaft für Chemotherapie, and Microbiology Society, UK. Prof. Dr. Schildgen has received several prestigious awards and nominations such as the Medizin-Management Award, the Wolfgang-

Stille-Award of the Paul-Ehrlich-Society (P.E.G.) for Chemotherapy, International Abbott Diagnostic Award of the European Society for Clinical Virology, International Meteka-Award of the Austrian Society for Microbiology (ÖGHMP), and more. Prof. Dr. Schildgen has also presented as a keynote lecturer at many conferences including but not limited to the Medical Physiology 2010 conference, Cambridge, UK, the WHO sponsored International Symposium on Viral respiratory disease Surveillance, and the International Symposium on HIV and Emerging Infectious Diseases.

In addition to serving as Section Editor of Infectious Diseases for *Medicine*, Prof. Dr. Schildgen currently serves as the Editor-in-Chief of Reviews in *Medical Microbiology* and as an Academic Editor for *Expert Review of Molecular Diagnostics*, *Cancers*, and *PLoS One*. He also served as an Expert Evaluator for numerous councils and foundations such as the French National Research Agency (ANR), the Polish Research Council, the Belgian Ministry of Health,

and more.

TOP

Dr. Dominik Steubl, MD

Nephrology



Dominik Steubl attended medical school at the Technical University Munich, Germany from 2003-2009. He completed his residency in internal medicine and nephrology at Hospital Rechts der Isar, Technical University Munich and affiliated hospitals, Germany 2010-2016. He completed research as a postdoc in the Division of Nephrology at Tufts Medical Center from 2017-2018. He is currently serving as a nephrology attending and a faculty member in the Division of Nephrology at Technical University Munich, Germany with a clinical focus on peritoneal dialysis and transplantation immunology.

TOP

Dr. Wen-Wei Sung, MD, Ph.D.

Surgery

Urology



Wen-Wei Sung completed M.D.-Ph.D. program training at Chung Shan Medical University in 2016, followed by one-year post-graduate year training. Afterward, he works in the Chung Shan Medical University and the Hospital as a resident of the Department of Urology and an Assistant Professor at the Chung Shan School of Medicine. His research focuses on oncoimmunology in the aspects of tumor progression and precision medicine. He also interests in the prognostic markers in types of cancer. He is the principal investigator of projects exploring personalized therapeutic strategies via primary cancer cells and in vivo models in urogenital and gastrointestinal cancers. He also serves as the editor (PLOS ONE; Medicine; World Journal of Gastrointestinal Oncology, WJGO) and the reviewer for more than forty journals.

TOP

Dr. Giovanni Tarantino, MD

Metabolic Disorders

Giovanni Tarantino received his MD with distinction from Federico II University of Naples School of Medicine in 1970. He received his specialization in Endocrinology and Metabolic Diseases in 1974 and Internal Medicine in 1980. Dr. Tarantino completed his residency at Federico II University School of Medicine Hospital of Naples and later served



as a consultant in Hepatology, as a research fellow, a principal clinical investigator in Hepatology, and an adjunct professor of Internal Medicine. Dr. Tarantino also served as Chief of the Hepatology in Internal Medicine and the Director of Investigative and Non-invasive Laboratory of Hepatic Hemodynamics and Ultrasonography of the Federico II School of Medicine Hospital of Naples. He was also the Coordinator at the Specialization School of Internal Medicine of the Federico II University Medical School.

After retiring from his professorship, Dr. Tarantino now serves as a consultant for the Internal Medicine team and a clinical investigator in the field of Hepatology and Clinical Medicine. Dr. Tarantino also serves as an editor for several medical journals including *Advances in Therapy*, *Medicina*, *Current Medicinal Chemistry*, *Frontiers in Medicine*, *BMC Pharmacology*, and more. Dr. Tarantino has published nearly 200 papers in peer-reviewed international journals and several chapters for books. His area of expertise includes non-alcoholic fatty liver disease, metabolic syndrome, obesity, atherosclerosis, PCOS, HCV-related chronic hepatitis, HCV-related arthritis, therapy of liver cirrhosis, portal hypertension, hepatic encephalopathy, imaging-ultrasonography of liver and spleen, psoriatic arthritis, and inflammation.

TOP

Dr. LW Zheng, DDS, MD, Ph.D.

Oral Medicine



LW Zheng is a clinical associate professor in Oral Medicine in the Division of Oral & Maxillofacial Surgery, Faculty of Dentistry, The University of Hong Kong. Dr. Zheng's research interests include compromised tissue healing/regeneration in the oral and maxillofacial region, as well as oral cancer and pre-cancer conditions. Dr. Zheng published two books, two dissertations, seven book chapters, and over 80 peer-reviewed journal articles.

TOP

Dr. Qinhong Zhang, Ph.D., MD

Neurology

Complementary and Alternative Medicine

Qinhong Zhang is an associate professor of Acupuncture and Moxibustion College of Heilongjiang University and a research scholar at the Stanford University School of Medicine.

Dr. Zhang was elected to join the Outstanding Innovative Talent Plan of both Heilongjiang Province and the Heilongjiang University of Chinese Medicine. He hosted and participated in 13 research projects, including national, provincial, and ministerial levels. Among them, Dr. Zhang hosted one project for the National Natural Science Foundation (Youth Scholar Fund), two projects for the Heilongjiang Provincial Department of Education, and two projects for the Heilongjiang University of Chinese Medicine. He has published three books and 65 research papers in more than 20 prominent international articles. Dr. Zhang won two awards at the ministerial level and one national invention patent.

Dr. Zhang's professional fields of interest include headache, migraine, frozen shoulder, tennis elbow, neck pain, Whiplash, lower back pain, knees pain, sciatica, etc., stroke rehabilitation (all weakness, paralysis, pain, emotional, urinary, and bowel disorders), brain and spinal cord injury, hearing loss, tinnitus, insomnia, stress, anxiety, depression, urinary disorder (urinary incontinence, urinary retention), and bowel disorder (constipation, bowel incontinence, irritable bowel syndrome).

TOP

^Back to Top



Never Miss an Issue

Get new journal Tables of Contents sent right to your email inbox

Browse Journal Content

- Most Popular (</md-journal/pages/viewallmostpopulararticles.aspx>)
- For Authors (/md-journal/_layouts/1033/oaks.journals/informationforauthors.aspx)
- About the Journal (</md-journal/pages/aboutthejournal.aspx>)
- Past Issues (</md-journal/pages/issuelist.aspx>)
- Current Issue (</md-journal/pages/currenttoc.aspx>)
- Register on the website (<https://journals.lww.com/md-journal/pages/register.aspx?ContextUrl=%2fmd-journal%2fPages%2feditorialboard.aspx>)
- Get eTOC Alerts

For Journal Authors

- Submit an article (<https://preflight.paperpal.com/partner/wolterskluwer/medicine/submit>)
- How to publish with us (<https://wkauthorservices.editage.com/>)

Customer Service

Live Chat

- Browse the help center (<https://wkhealth.force.com/lwwonline/s/topic/0TO0V000001YgLZWA0/lww-online?tabset-ddbfe=2>)
- Help (<https://wkhealth.force.com/lwwonline/s/topic/0TO0V000001YgLZWA0/lww-online?tabset-ddbfe=2>)
- Contact us at:

[Home \(/md-journal/pages/default.aspx\)](#) > January 14, 2022 - Volume 101 - Issue 2

< [Previous Issue \(/md-journal/toc/2022/01070\)](#) | [Next Issue \(/md-journal/toc/2022/01210\)](#) >




January 14, 2022 - Volume 101 - Issue 2

pp: e21213-e28609

 [Table of Contents Outline](#)

 [Subscribe to eTOC](#)





 [View Contributor Index \(https://journals.lww.com/md-journal/pages/contributorindex.aspx?year=2022&issue=01140\)](https://journals.lww.com/md-journal/pages/contributorindex.aspx?year=2022&issue=01140)

 [Research Article](#)

Study Protocol Systematic Review





The effects of swimming sports on the prevention and restoration of COVID-19 and its variant strains: A protocol for systematic review and meta-analysis (https://journals.lww.com/md-journal/Fulltext/2022/01140/The_effects_of_swimming_sports_on_the_prevention.60.aspx)

Zeng, Jing; Liu, Qing; Wang, Yang; More
Medicine. 101(2):e28571, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/The_effects_of_swimming_sports_on_the_prevention.60.aspx)





Traditional Chinese medicine Jianpi therapy in exercise-induced fatigue: A protocol for systematic review and meta-analysis (https://journals.lww.com/md-journal/Fulltext/2022/01140/Traditional_Chinese_medicine_Jianpi_therapy_in.72.aspx)

Geng, Xue; Guo, Xiujuan; Liu, Baoquan; More
Medicine. 101(2):e28594, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Traditional_Chinese_medicine_Jianpi_therapy_in.72.aspx)

Acupuncture for nasal congestion in COVID-19: A protocol for systematic review and meta-analysis (https://journals.lww.com/md-journal/Fulltext/2022/01140/Acupuncture_for_nasal_congestion_in_COVID_19__A.73.aspx)

Dong, Zhibin; Guo, Jinyun; Deng, Tingting; More
Medicine. 101(2):e28600, January 14, 2022.





-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Acupuncture_for_nasal_congestion_in_COVID_19__A.73.aspx)
- SDC (https://journals.lww.com/md-journal/Fulltext/2022/01140/Acupuncture_for_nasal_congestion_in_COVID_19__A.73.aspx#ej-article-sam-container)

Observational Study

Epidemiological investigation and ultrasonic diagnosis of developmental dysplasia of the hip in Chinese infants: A large multi-center cohort study (https://journals.lww.com/md-journal/Fulltext/2022/01140/Epidemiological_investigation_and_ultrasonic.5.aspx)

Xu, Na; Xia, Bei; Tao, Hongwei; More





Medicine. 101(2):e28320, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Epidemiological_investigation_and_ultrasonic.5.aspx)

Diagnostic value of calcaneal quantitative ultrasound in the evaluation of osteoporosis in middle-aged and elderly patients (https://journals.lww.com/md-journal/Fulltext/2022/01140/Diagnostic_value_of_calcaneal_quantitative.6.aspx)

Li, Changzhou; Sun, Jifeng; Yu, Li





Medicine. 101(2):e28325, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Diagnostic_value_of_calcaneal_quantitative.6.aspx)

Sex disparities in the effect of statins on lipid parameters: The PharmLines Initiative (https://journals.lww.com/md-journal/Fulltext/2022/01140/Sex_disparities_in_the_effect_of_statins_on_lipid.8.aspx)

Hunt, Nicholas B.; Emmens, Johanna E.; Irawati, Sylvi; More





Medicine. 101(2):e28394, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Sex_disparities_in_the_effect_of_statins_on_lipid.8.aspx)
- SDC (https://journals.lww.com/md-journal/Fulltext/2022/01140/Sex_disparities_in_the_effect_of_statins_on_lipid.8.aspx#ej-article-sam-container)

Dosimetric comparison between intensity-modulated radiotherapy and volumetric-





modulated arc therapy in patients of left-sided breast cancer treated with modified radical mastectomy: CONSORT (https://journals.lww.com/md-journal/Fulltext/2022/01140/Dosimetric_comparison_between_intensity_modulated.11.aspx)

Wang, Rui; Shen, Jun; Yan, Huanhuan; More
Medicine. 101(2):e28427, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Dosimetric_comparison_between_intensity_modulated.11.aspx)





Health disparities among Black deaf and hard of hearing Americans as compared to Black hearing Americans: A descriptive cross-sectional study (https://journals.lww.com/md-journal/Fulltext/2022/01140/Health_disparities_among_Black_deaf_and_hard_of.20.aspx)

Perrodin-Njoku, Emmanuel; Corbett, Carolyn; Moges-Riedel, Rezenet; More
Medicine. 101(2):e28464, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Health_disparities_among_Black_deaf_and_hard_of.20.aspx)





Current state and future direction of task shifting in obstetric and gynecological care: A survey of obstetrician–gynecologists across Japan (https://journals.lww.com/md-journal/Fulltext/2022/01140/Current_state_and_future_direction_of_task.21.aspx)

Ishikawa, Masatoshi
Medicine. 101(2):e28467, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Current_state_and_future_direction_of_task.21.aspx)





Does influenza vaccination help reduce incidence of COVID-19 infection among hospital employees? (https://journals.lww.com/md-journal/Fulltext/2022/01140/Does_influenza_vaccination_help_reduce_incidence.26.aspx)

Shosha, Soha H.; Ajlan, Dana I.; Al-Ghatam, Rana
Medicine. 101(2):e28479, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Does_influenza_vaccination_help_reduce_incidence.26.aspx)





Clinicopathological characteristics and treatment of patients with high-grade endometrial stromal sarcoma: A retrospective study of 40 cases (https://journals.lww.com/md-journal/Fulltext/2022/01140/Clinicopathological_characteristics_and_treatment.28.aspx)

Bai, Huimin; Yuan, Fang; Liang, Bing; More
Medicine. 101(2):e28490, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Clinicopathological_characteristics_and_treatment.28.aspx)





Beliefs about medication and their association with adherence in Chinese patients with non-dialysis chronic kidney disease stages 3–5 (https://journals.lww.com/md-journal/Fulltext/2022/01140/Beliefs_about_medication_and_their_association.29.aspx)

Bai, He-He; Nie, Xiao-Jing; Chen, Xiao-Lin; More
Medicine. 101(2):e28491, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Beliefs_about_medication_and_their_association.29.aspx)





Tranexamic acid use decreases transfusion rate in children with cerebral palsy undergoing proximal femoral varus derotational osteotomy (https://journals.lww.com/md-journal/Fulltext/2022/01140/Tranexamic_acid_use_decreases_transfusion_rate_in.35.aspx)

Compton, Edward; Goldstein, Rachel Y.; Nazareth, Alexander; More
Medicine. 101(2):e28506, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Tranexamic_acid_use_decreases_transfusion_rate_in.35.aspx)





Value of posttransplant protocol biopsies in 2 biliary autoimmune liver diseases: A step toward personalized immunosuppressive treatment (https://journals.lww.com/md-journal/Fulltext/2022/01140/Value_of_posttransplant_protocol_biopsies_in_2.36.aspx)

Vannas, Marko; Arola, Johanna; Nordin, Arno; More
Medicine. 101(2):e28509, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Value_of_posttransplant_protocol_biopsies_in_2.36.aspx)





Safety of the BNT162b2 mRNA COVID-19 vaccine in oncologic patients undergoing numerous cancer treatment options: A retrospective single-center study (https://journals.lww.com/md-journal/Fulltext/2022/01140/Safety_of_the_BNT162b2_mRNA_COVID_19_vaccine_in.53.aspx)

Kian, Waleed; Zemel, Melanie; Kestenbaum, Emily H.; More
Medicine. 101(2):e28561, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Safety_of_the_BNT162b2_mRNA_COVID_19_vaccine_in.53.aspx)





Initial experience with intensity distribution analysis of hemodynamic parameters in the thoracic aorta using four-dimensional magnetic resonance imaging: A comparison between groups with different ejection fractions (https://journals.lww.com/md-journal/Fulltext/2022/01140/Initial_experience_with_intensity_distribution.54.aspx)

Nishimura, Takamasa; Sueyoshi, Eijun; Koike, Hirofumi; More
Medicine. 101(2):e28563, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Initial_experience_with_intensity_distribution.54.aspx)





Changes in the characteristics of trauma patients after the early COVID-19 outbreak: A retrospective study of a regional level 1 trauma center in Republic of Korea (https://journals.lww.com/md-journal/Fulltext/2022/01140/Changes_in_the_characteristics_of_trauma_patients.56.aspx)

Park, Jiye; Jung, Kyoungwon; Kwon, Junsik; More
Medicine. 101(2):e28567, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Changes_in_the_characteristics_of_trauma_patients.56.aspx)
- SDC (https://journals.lww.com/md-journal/Fulltext/2022/01140/Changes_in_the_characteristics_of_trauma_patients.56.aspx#ej-article-sam-container)





Association of blood cobalt concentrations with dyslipidemia, hypertension, and diabetes in a US population: A cross-sectional study (https://journals.lww.com/md-journal/Fulltext/2022/01140/Association_of_blood_cobalt_concentrations_with.57.aspx)

Wang, Hongxin; Li, Feng; Xue, Jianghua; More
Medicine. 101(2):e28568, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Association_of_blood_cobalt_concentrations_with.57.aspx)

Arterial spin labeling signal ratio between the lesion and contralateral sides for evaluation of acute middle cerebral artery infarct (https://journals.lww.com/md-journal/Fulltext/2022/01140/Arterial_spin_labeling_signal_ratio_between_the.58.aspx)

Lee, Junyoung; Park, Dong Woo; Kim, Young Seo; More
Medicine. 101(2):e28569, January 14, 2022.

-  Abstract
-  Favorites
-  PDF
-  Get Content & Permissions
- Open (https://journals.lww.com/md-journal/Fulltext/2022/01140/Arterial_spin_labeling_signal_ratio_between_the.58.aspx)

Clinical Trial/Experimental Study

Lipid accumulation product as useful predictors of stroke: A correlation analysis between lipid accumulation index/cerebral vascular hemodynamics indexes and risk factors of stroke in 3264 people undergoing physical examination in Xinjiang (<https://journals.lww.com/md-journal/Fulltext/2022/01140>)

/Lipid_accumulation_product_as_useful_predictors_of.15.aspx

Zhang, Bing; Wang, Xiao; Zhong, Li; More
Medicine. 101(2):e28444, January 14, 2022.

- [Abstract](#)
- [☆Favorites](#)
- [PDF](#)
- [©Get Content & Permissions](#)
- [Open \(https://journals.lww.com/md-journal/Fulltext/2022/01140/Lipid_accumulation_product_as_useful_predictors_of.15.aspx\)](https://journals.lww.com/md-journal/Fulltext/2022/01140/Lipid_accumulation_product_as_useful_predictors_of.15.aspx)

Table of Contents Outline | [Back to Top](#)
(../_controltemplates/OAKS.Journals/#)

-
- 1
- 2
- 3
- 4
-

Show 20 results per page Show:
20 results per page

[^Back to Top](#)



Never Miss an Issue

Get new journal Tables of Contents sent right to your email inbox

Browse Journal Content


- [Most Popular \(/md-journal/pages/viewallmostpopulararticles.aspx\)](/md-journal/pages/viewallmostpopulararticles.aspx)
- [For Authors \(/md-journal/_layouts/1033/oaks.journals/informationforauthors.aspx\)](/md-journal/_layouts/1033/oaks.journals/informationforauthors.aspx)
- [About the Journal \(/md-journal/pages/aboutthejournal.aspx\)](/md-journal/pages/aboutthejournal.aspx)
- [Past Issues \(/md-journal/pages/issuelist.aspx\)](/md-journal/pages/issuelist.aspx)
- [Current Issue \(/md-journal/pages/currenttoc.aspx\)](/md-journal/pages/currenttoc.aspx)



Medicine (United States)

COUNTRY

[United States](#)

 Universities and research institutions in United States

SUBJECT AREA AND CATEGORY

[Medicine](#)
[Medicine \(miscellaneous\)](#)

PUBLISHER

[Lippincott Williams and Wilkins Ltd.](#)

H-INDEX

155

PUBLICATION TYPE

[Journals](#)

ISSN

00257974, 15365964

COVERAGE

1922-2021

INFORMATION

[Homepage](#)
[How to publish in this journal](#)
medicine@wolterskluwer.com

SCOPE

Medicine® will publish original research across a broad scope of medical disciplines, including: -Anesthesiology- Neurology- Cardiovascular- Nutrition- Complementary and alternative medicine- Obstetrics and gynecology- Critical care and emergency medicine- Oncology- Dermatology- Ophthalmology- Endocrinology- Oral medicine- Gastroenterology and hepatology- Otorhinolaryngology- Genetics- Pediatrics- Geriatrics- Public Health- Hematology- Pulmonology- Immunology- Radiology- Infectious Diseases- Rheumatology- Mental health- Sports and exercise medicine- Metabolic disorders- Surgery- Nephrology- Toxicology- Neurology- Urology-

 [Join the conversation about this journal](#)

FIND SIMILAR JOURNALS ?

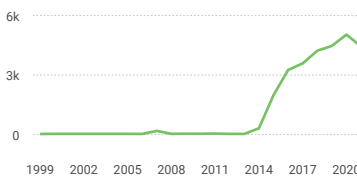
options :

<p>1 Journal of International Medical Research GBR</p> <p>80% similarity</p>	<p>2 National Medical Journal of China CHN</p> <p>68% similarity</p>	<p>3 Therapeutics and Clinical Risk Management NZL</p> <p>68% similarity</p>	<p>4 Medicina (Lithuania) CHE</p> <p>66% similarity</p>	<p>5 Irish Journal of Medical Science GBR</p> <p>65% similarity</p>
--	--	--	---	---

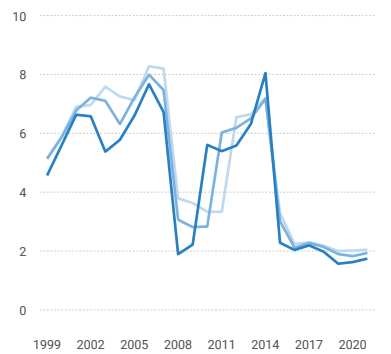
SJR



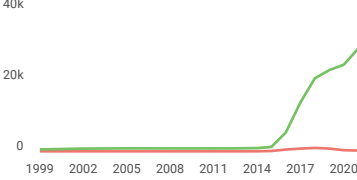
Total Documents



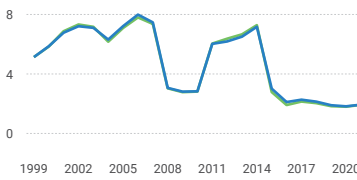
Citations per document



Total Cites Self-Cites



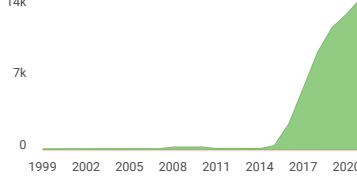
External Cites per Doc Cites per Doc



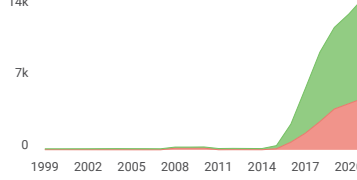
% International Collaboration



Citable documents Non-citable documents



Cited documents Uncited documents



Medicine (United States)

Q3
Medicine (miscellaneous)
best quartile

SJR 2021
0.47

powered by scimagojr.com

Show this widget in your own website

Just copy the code below and paste within your html code:

```
<a href="https://www.scimagojr.com" data-bbox="193 854 297 865">
```

SCImago Graphica

Explore, visually communicate and make sense of data with our new data visualization tool.





Source details

Medicine (United States)

Open Access ⓘ

Scopus coverage years: from 1922 to Present

Publisher: Wolters Kluwer Health

ISSN: 0025-7974 E-ISSN: 1536-5964

Subject area: Medicine: General Medicine

Source type: Journal

CiteScore 2020

2.4 ⓘ

SJR 2020

0.590 ⓘ

SNIP 2020

0.911 ⓘ

[View all documents >](#)

[Set document alert](#)

[Save to source list](#) [Source Homepage](#)

[CiteScore](#) [CiteScore rank & trend](#) [Scopus content coverage](#)

CiteScore 2020 ▾

$$2.4 = \frac{41,825 \text{ Citations } 2017 - 2020}{17,300 \text{ Documents } 2017 - 2020}$$

Calculated on 05 May, 2021

CiteScoreTracker 2021 ⓘ

$$2.7 = \frac{48,203 \text{ Citations to date}}{18,144 \text{ Documents to date}}$$

Last updated on 06 April, 2022 • Updated monthly

CiteScore rank 2020 ⓘ

Category	Rank	Percentile
Medicine		
General Medicine	#227/793	71st

[View CiteScore methodology >](#) [CiteScore FAQ >](#) [Add CiteScore to your site ↗](#)

About Scopus

[What is Scopus](#)

[Content coverage](#)

[Scopus blog](#)

[Scopus API](#)

[Privacy matters](#)

Language

[日本語に切り替える](#)

[切换到简体中文](#)

[切换到繁體中文](#)

[Русский язык](#)

Customer Service

[Help](#)

[Tutorials](#)

[Contact us](#)

ELSEVIER

[Terms and conditions](#) ↗ [Privacy policy](#) ↗

Copyright © Elsevier B.V. ↗. All rights reserved. Scopus® is a registered trademark of Elsevier B.V.

We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies.

