

Over 100 Scientists, Doctors, & Leading Authorities Call For Increased Vitamin D Use To Combat COVID-19

Scientific evidence indicates vitamin D reduces infections & deaths

Dec 7, 2020

To all governments, public health officials, doctors, and healthcare workers,

Research shows low vitamin D levels almost certainly promote COVID-19 infections, hospitalizations, and deaths. Given its safety, **we call for immediate widespread increased vitamin D intakes.**

Vitamin D modulates thousands of genes and many aspects of immune function, both innate and adaptive. The scientific evidence¹ shows that:

- Higher vitamin D blood levels are associated with lower rates of SARS-CoV-2 infection.
- Higher D levels are associated with lower risk of a severe case (hospitalization, ICU, or death).
- Intervention studies (including RCTs) indicate that vitamin D can be a very effective treatment.
- Many papers reveal several biological mechanisms by which vitamin D influences COVID-19.
- Causal inference modelling, Hill's criteria, the intervention studies & the biological mechanisms indicate that **vitamin D's influence on COVID-19 is very likely causal**, not just correlation.

Vitamin D is well known to be essential, but most people do not get enough. Two common definitions of inadequacy are deficiency < 20ng/ml (50nmol/L), the target of most governmental organizations, and insufficiency < 30ng/ml (75nmol/L), the target of several medical societies & experts.² Too many people have levels below these targets. **Rates of vitamin D deficiency <20ng/ml exceed 33% of the population in most of the world, and most estimates of insufficiency <30ng/ml are well over 50% (but much higher in many countries).**³ Rates are even higher in winter, and several groups have notably worse deficiency: the overweight, those with dark skin (especially far from the equator), and care home residents. These same groups face increased COVID-19 risk.

It has been shown that 3875 IU (97mcg) daily is required for 97.5% of people to reach 20ng/ml, and 6200 IU (155mcg) for 30ng/ml,⁴ intakes far above all national guidelines. Unfortunately, the report that set the US RDA included an admitted statistical error in which required intake was calculated to be ~10x too low.⁴ Numerous calls in the academic literature to raise official recommended intakes had not yet resulted in increases by the time SARS-CoV-2 arrived. Now, many papers indicate that vitamin D affects COVID-19 more strongly than most other health conditions, with increased risk at levels < 30ng/ml (75nmol/L) and severely greater risk < 20ng/ml (50nmol/L).¹

¹ The evidence was comprehensively reviewed (188 papers) through mid-June [Benskin '20] & more recent publications are increasingly compelling [Merzon et al '20; Kaufman et al '20; Castillo et al '20]. (See also [Jungreis & Kellis '20] for deeper analysis of Castillo et al's RCT results.)

² E.g.: 20ng/ml: National Academy of Medicine (US, Canada), European Food Safety Authority, Germany, Austria, Switzerland, Nordic Countries, Australia, New Zealand, & [consensus of 11 international organizations](#). 30ng/ml: Endocrine Society, American Geriatrics Soc., & [consensus of scientific experts](#). See also [Baouillon '17].

³ [Palacios & Gonzalez '14; Cashman et al '16; van Schoor & Lips '17] Applies to China, India, Europe, US, etc.

⁴ [Heaney et al '15; Veugelers & Ekwarun '14]

Evidence to date suggests the possibility that the COVID-19 pandemic sustains itself in large part through infection of those with low vitamin D, and that deaths are concentrated largely in those with deficiency. The mere possibility that this is so should compel urgent gathering of more vitamin D data. Even without more data, **the preponderance of evidence indicates that increased vitamin D would help reduce infections, hospitalizations, ICU admissions, & deaths.**

Decades of safety data show that vitamin D has very low risk: Toxicity would be extremely rare with the recommendations here. The risk of insufficient levels far outweighs any risk from levels that seem to provide most of the protection against COVID-19, and this is notably different from drugs & vaccines. Vitamin D is much safer than steroids, such as dexamethasone, the most widely accepted treatment to have also demonstrated a large COVID-19 benefit. Vitamin D's safety is more like that of face masks. **There is no need to wait for further clinical trials to increase use of something so safe, especially when remedying high rates of deficiency/insufficiency should already be a priority.**

Therefore, we call on all governments, doctors, and healthcare workers worldwide to immediately recommend and implement efforts appropriate to their adult populations to increase vitamin D, at least until the end of the pandemic. Specifically to:

1. Recommend amounts from all sources sufficient to **achieve 25(OH)D serum levels over 30ng/ml (75nmol/L)**, a widely endorsed minimum with evidence of reduced COVID-19 risk.
2. Recommend to adults **vitamin D intake of 4000 IU (100mcg) daily** (or at least 2000 IU) in the absence of testing. 4000 IU is widely regarded as safe.⁵
3. Recommend that adults at increased risk of deficiency due to excess weight, dark skin, or living in care homes may need higher intakes (eg, 2x). Testing can help to avoid levels too low or high.
4. Recommend that adults not already receiving the above amounts get 10,000 IU (250mcg) daily for 2-3 weeks (or until achieving 30ng/ml if testing), followed by the daily amount above. This practice is widely regarded as safe. The body can synthesize more than this from sunlight under the right conditions (e.g., a summer day at the beach). Also, the NAM (US) and EFSA (Europe) both label this a "No Observed Adverse Effect Level" even as a daily maintenance intake.
5. **Measure 25(OH)D levels of all hospitalized COVID-19 patients** & treat w/ calcifediol or D3, to at least remedy insufficiency <30ng/ml (75nmol/L), possibly with a protocol along the lines of [Castillo et al '20](#) or [Rastogi et al '20](#), until evidence supports a better protocol.

Many factors are known to predispose individuals to higher risk from exposure to SARS-CoV-2, such as age, being male, comorbidities, etc., **but inadequate vitamin D is by far the most easily and quickly modifiable risk factor with abundant evidence to support a large effect.** Vitamin D is inexpensive and has negligible risk compared to the considerable risk of COVID-19.

Please Act Immediately

⁵ The following include 4000 IU within their tolerable intakes in official guidelines: NAM (US, Canada), SACN (UK), EFSA (Europe), Endocrine Society (international), Nordic countries, Netherlands, Australia & New Zealand, UAE, and the American Geriatrics Soc. (USA, elderly). No major agency specifies a lower tolerable intake limit. The US NAM said 4000 IU "is likely to pose no risk of adverse health effects to almost all individuals." See also [Gustina et al '20].

The signatories below endorse this letter. Affiliations do not imply endorsement of the letter by the institutions themselves.

This letter takes no position on other public health measures besides vitamin D. Personal views of individual signatories on any other matter do not represent the group as a whole.

All signatories declare no conflicts of interest except as noted.

To emphasize: **The organizing signatories have no conflicts of interest in this area (financial or otherwise),** nor have they done research in this area prior to 2020.

Signatories (130)	recommended intake	personal daily intake
Dr. Karl Pfeleger, PhD AI & Computer Science, Stanford. Former Google Data Scientist. Biotechnology Investor, AgingBiotech.info, San Francisco, CA, USA. (organizing signatory)	4000 IU	6000 IU
Dr. Gareth Davies, PhD Medical Physics, Imperial College, London, UK. Codex World's Top 50 Innovator 2019. Independent Researcher. Lead author of "Evidence Supports a Causal Role for Vitamin D Status in COVID-19 Outcomes." (organizing signatory)	4000 IU	5000 IU
Dr. Bruce W Hollis, PhD. Professor of Pediatrics, Medical University of South Carolina, USA.	4000 IU	6000 IU
Dr. Barbara J Boucher, MD, FRCP (London), Honorarv Professor (Medicine), Blizzard Institute, Bart's & The London School of Medicine and Dentistry, Queen Mary University of London, UK. (significantly contributing signatory)	4000 IU	2000 IU
Dr. Ashley Grossman, MD FRCP FMedSci, Emeritus Professor of Endocrinology, University of Oxford, UK. Professor of Neuroendocrinology, Barts and the London School of Medicine. 2020 Endocrine Society Laureate Award.	2000 IU	2200 IU
Dr. Gerry Schwalfenberg, MD, CCFP, FCFP, Assistant Clinical Professor in Family Medicine, University of Alberta, Canada.	4000 IU	5000 IU
Dr. Giovanna Muscogiuri, MD PhD, Associate Editor, European Journal of Clinical Nutrition. Department of Clinical Medicine and Surgery, Section of Endocrinology, University "Federico II" of Naples, Naples, Italy.	4000 IU	1000 IU
Dr. Michael F. Holick, PhD MD, Professor Medicine, Physiology and Biophysics and Molecular Medicine, Director Vitamin D, Skin and Bone Research Laboratory, Boston University Medical Center, USA. (6000 IU) Disclosure: Consultant Biogena and speaker's Bureau Abbott Inc.	4000 IU	6000 IU
Dr. John Umhau, MD, MPH, CDR, USPHS (ret), President, Academy of Medicine of Washington, DC, USA. Ex-NIH: co-author of the first peer-reviewed report linking vitamin D deficiency with acute respiratory infection. (significantly contributing signatory)	4000 IU	5000 IU
Dr. Pawel Pludowski, MD, dr hab. Associate Professor, Biochemistry, Radioimmunology and Experimental Medicine, Children's Memorial Health Institute, Warsaw, Poland. Chair, European Vitamin D Association (EVIDAS) [non-profit].	4000 IU	2000 IU
Dr. Cedric F. Garland, DrPH, Professor Emeritus, Department of Family Medicine and Public Health, University of California, San Diego, USA.	4000 IU	6000 IU
Dr. Jose M. Benito, Professor, Director of the Institute for Instrumentation on Molecular Imaging, CSIC-UPV, Valencia, Spain.	2000 IU	3000 IU
Dr. Samantha Kimball, PhD, MLT, Professor, St. Mary's University, Calgary, Alberta, Canada. Research Director, GrassrootsHealth Nutrient Research Institute [non-profit]. (significantly contributing signatory)	4000 IU	6000 IU
Dr. William B. Grant, PhD Physics, U. of California, Berkeley. Director at Sunlight, Nutrition, and Health Research Center [non-profit], San Francisco, CA, USA. Disclosure: Receives funding from Bio-Tech Pharnal, Inc.	4000 IU	5300 IU
Dr. Carol L. Wagner, MD, Professor, Medical University of South Carolina, USA.	4000 IU	5000 IU
Dr. Paul Marik, MD, FCCP, FCCM. Chief of Pulmonary and Critical Care Medicine and Professor of Medicine, Eastern Virginia Medical School, Norfolk, VA, USA.	2000 IU	2000 IU
Dr. Morry Silberstein, MD, Associate Professor, Curtin University, Australia.	4000 IU	
Dr. Vatsal Thakkar, MD, Founder, Reimbursify, NY, USA. Former faculty, NYU and Vanderbilt. Op-Ed writer on Vitamin D and COVID-19. (significantly contributing signatory)	4000 IU	10,000 IU
Dr. Peter H Cobbold, PhD, Emeritus Professor, Cell Biology, University of Liverpool, UK.	4000 IU	4000 IU
Dr. Afroz Haq, PhD, Professor Dept of Food Technology, Jamia Hamdard University, New Delhi, India.	4000 IU	2000 IU
Dr. Barry H. Thompson, MD, FAAP, FACMG. Clinical Associate Professor (Pediatrics), Uniformed Services University of the Health Sciences, Bethesda, MD, USA.	4000 IU	5000 IU
Dr. Reinhold Vieth, PhD, FCACB, Professor, Departments of Nutritional Sciences and Laboratory Medicine & Pathobiology, University of Toronto, Canada. Director (retired), Bone and Mineral Group Laboratory, Mt Sinai Hospital. Disclosure: Receives patent royalties from Ddrops (an infant vitamin D supplement).	4000 IU	4000 IU
Dr. Linda Benskin, PhD, RN, SRN(Ghana), CWCN, CWS, DAPWCA. Independent Researcher for Tropical Developing Countries and Ferris Mfg. Corp. Texas, USA. (significantly contributing signatory)	4000 IU	4000 IU
Jim O'Neill, CEO, SENS Research Foundation. Former principal associate deputy secretary of Health and Human Services, USA.	4000 IU	6000 IU
Dr. Eric Feigl-Ding, PhD, Epidemiologist & Health Economist. Senior Fellow, Federation of American Scientists, USA.	4000 IU	5000 IU
Rt Hon David Davis MP, Member of Parliament (Conservative Party), BSc, Joint Hons Molecular Science / Computer Science, Warwick University, UK.	4000 IU	6000 IU
Dr Rupa Huq MP, Member of Parliament (Labour Party), PhD, Cultural Studies, University of East London, UK.	4000 IU	
Dr. Susan J Whiting, PhD. Professor Emerita, University of Saskatchewan, Canada.	4000 IU	4000 IU
Dr. Richard Mazess, PhD, Emeritus Professor, University of Wisconsin, Madison, USA.	4000 IU	5000 IU
Dr. Helga Rhein, MD (retired), Sighthill Health Centre, Edinburgh, UK. (significantly contributing signatory)	4000 IU	3500 IU
Dr. Andrea Doeschl-Wilson, PhD, Professor of Infectious disease genetics and modelling, The Roslin Institute, University of Edinburgh, UK.	2000 IU	
Dr. Ute-Christiane Meier, Dr med habil, PhD (Oxon), Dipl-Biol. Visiting lecturer, Institute of Psychiatry, Psychology & Neuroscience, King's College, London, UK and Privatdozentin, Ludwig Maximilian University of Munich, Germany. Disclosure: Patent 20160131666: "Biomarkers for inflammatory response."	4000 IU	2500 IU
Dr. Luigi Gennari, MD PhD, Full Professor, Internal Medicine, Department of Medicine, Surgery and Neurosciences, University of Siena, Siena, Italy.	4000 IU	3500 IU
Dr. Ased Ali, MBChB, PhD, FRCS. Consultant Urological Surgeon, Mid Yorkshire Hospitals NHS Trust, UK.	4000 IU	8000 IU
Dr. Pavel Kopovsky, PhD DSc FRSE FRSC. Professor Charles University, Prague, and Czech Academy of Sciences, Czech Republic.	4000 IU	6000 IU
Dr. Ace Licovson, MD, Endocrinologist. Clinical Professor, George Washington University, Washington, DC, USA.	4000 IU	2000 IU
Dr. Attila R Garami, MD, PhD Multidisciplinary Medical Sciences. Senior Biomarker Consultant, Switzerland.	4000 IU	2500 IU
Dr. David S Grimes, MD (retired), FRCP, University of Manchester, UK.	4000 IU	4000 IU
Dr. Larry Callahan, PhD, Chemist, FDA, Maryland, USA.	2000 IU	3000 IU
Dr. Jeanne M Marconi, MD, Pediatrics. Vice President of PM Pediatrics, New York, USA.	4000 IU	5000 IU
Dr. Spiros Karras, MD. Endocrinologist. Department of Endocrinology and Metabolism-Diabetes Center, 1st Department of Internal Medicine, AHEPA University Hospital, Thessaloniki, Greece.	2000 IU	2000 IU
Dr. Joanna Byers, MBChB, University of Birmingham, UK.	4000 IU	5000 IU
Dr. Jaimin Bhatt, MBChB, MMed(Surgery) FRCS(Urol) FEBU. Consultant Urological Surgeon, Queen Elizabeth University Hospital, NHS Greater Glasgow and Clyde, UK. (2000 IU)	4000 IU	2000 IU
Dr. Christiane Northrup, MD, Obstetrician/Gynecologist.	4000 IU	7500 IU
Dr. Jörg Spitz, Dr med. Academy of Human Medicine, Schlagenbad, Germany.	4000 IU	10,000 IU
Dr. Naghmeh Mirhosseini, MD, PhD, MPH, Research Associate, School of Public Health, University of Saskatchewan, Canada..	4000 IU	5000 IU
Dr. Lucio Chiodini, Associate Professor of Endocrinology, Dept. of Medical Biotechnology and Translational Medicine, University of Milan, Milan, Italy. Head, Unit for Bone Metabolism Diseases and Diabetes, Istituto Auxologico Italiano, IRCCS, Milan, Italy.	4000 IU	3500 IU
Dr. David C Anderson, MD MSc FRCP FRCPE FRCPath. Retired Physician and Endocrinologist, Former Professor of Endocrinology, Manchester University, UK and Professor of Medicine, The Chinese University of Hong Kong.	4000 IU	4000 IU
Dr. Colin Bannon, MBChB, GP (retired), Devon, UK.	4000 IU	5000 IU
Dr. Patricia S. Latham, MD EdD, Professor of Pathology & Medicine, George Washington University School of Medicine and Health Sciences, Washington, DC, USA.	2000 IU	2000 IU
Dr. Teresa Fuller, MD PhD, Pediatrician, Owings Mills, MD, USA.	4000 IU	5000 IU
Dr. Omar Wasow, PhD, Harvard. Assistant Professor, Politics, Princeton University, NJ, USA.	4000 IU	4000 IU
Dr. Fabio Vescini, MD PhD, Endocrinology and Metabolism Unit, University-Hospital S. Maria della Misericordia, Italy.	2000 IU	2000 IU
Dr. Emily Grossman, PhD Molecular Biology, University of Manchester, UK. Science Author, Broadcaster and Educator.	4000 IU	4000 IU
Dr. David Carman, MBChB, University of Cape Town, South Africa.	4000 IU	3000 IU
Dr. Kalliopi Kotsa, Professor, Endocrinology-Diabetes, Dept of Medicine, Aristotle University, Thessaloniki, Greece.	4000 IU	4000 IU
Dr. Eva Kocovska, PhD, Queen Mary University of London, UK. Gilberg Neuropsychiatry Centre, University of Gothenburg, Sweden. Medical College, Prague, Czech Republic.	2000 IU	2000 IU
Dr. Benjamin Jacobs, MBBS MD MRCP(UK) FRCPCH. Royal National Orthopaedic Hospital, UK.	2000 IU	2000 IU
Dr. Joan Lappe, PhD DRN FAAN. Professor, Creighton University, Omaha, Nebraska, USA.	4000 IU	
Dr. Ronald A. Primas, MD FACP FACPM DABHM CTH. New York, NY, USA.	4000 IU	4000 IU
Dr. Cristina Eller Vainicher, MD, Unit of Endocrinology, Fondazione Ca'Granda IRCCS Ospedale Maggiore Policlinico Milan, Italy. Head of the outpatients clinic for osteoporosis.	4000 IU	3500 IU
Dr. Matthias Gauger, MD. General Practitioner, Switzerland.	2000 IU	3000 IU
Dr. David Warwick, DDS. Dentist, Alberta, Canada. Published Researcher.	4000 IU	8000 IU
Dr. Sunil J. Wimalawansa, MD PhD MBA FRCP FRCPath FACE FACP DSc. Professor of Medicine, Endocrinology & Nutrition, Cardiometabolic & Endocrine Institute, New Jersey, USA.	4000 IU	5000 IU
Perry S. Holman, Executive Director, Vitamin D Society [non-profit], Canada.	4000 IU	4000 IU
Sharon McDonnell, MPH, Biostatistician, GrassrootsHealth Nutrient Research Institute [non-profit], Encinitas, CA, USA.	4000 IU	5000 IU
Mike Fisher, Founder, VitaminDAssociation.org [non-profit]. Director of Research, Systems Biology Laboratory, UK.	4000 IU	4000 IU
Dr. Lina Zgaga, MD, PhD, Associate Professor of Epidemiology, Trinity College Dublin, University of Dublin, Ireland.	2000 IU	3000 IU
Dr. Irwin Jungreis, PhD, Harvard University. Research Scientist, Massachusetts Institute of Technology, Cambridge, MA, USA.	2000 IU	2700 IU
Dr. Jane Coad, PhD, Professor of Nutrition, Massey University, New Zealand.	4000 IU	2000 IU
Dr. Cedric Annweiler, MD PhD, Professor of Geriatric Medicine, School of Medicine, Health Faculty, University of Angers and Department of Medicine, Clinique de l'Anjou, Angers, France. Disclosure: occasional consultant for Mylan Laboratories Inc.	2000 IU	2000 IU
Dr. Salvatore Minisola, Full Professor of Internal Medicine, "Sapienza" Rome University, Italy.	4000 IU	
Dr. Mats B. Humble, MD PhD, Psychiatrist (retired), Senior lecturer, Department of Medical Sciences, Örebro University, Sweden.	2000 IU	3000 IU
Dr. Andrea Fabbri, MD PhD, Professor of Endocrinology, Head Endocrinology Division, Ospedale CTO A. Alesini, University of Rome Tor Vergata, Rome, Italy.	4000 IU	7000 IU
Dr. Steve Jones, PhD FRS. Emeritus Professor of Human Genetics, Dept of Genetics, Evolution and Environment, University College London, UK.	4000 IU	
Dr. Hermann Brenner, MD MPH, Professor of Epidemiology, Head of Clinical Epidemiology and Aging Research, German Cancer Research Center, Heidelberg, Germany.	2000 IU	2000 IU
Dr. Helder F. B. Martins, MD PhD (hon), Specialist & Emeritus Professor of Public Health. Former Minister of Health, Mozambique. Former WHO. Member, Mozambican Government COVID-19 advisory committee.	4000 IU	4000 IU
Dr. G. Siegfried Wedel, MD, Internist-Nephrologist (retired), Vierhöfen, Germany.	4000 IU	8000 IU
Dr. Robin Weiss, PhD FRCPath FMedSci FRS. Emeritus Professor of Viral Oncology, Division of Infection & Immunity, University College London, UK.	4000 IU	2000 IU
Dr. Giancarlo Isaia, Full Professor, University of Turin, Italy.	2000 IU	
Dr. Susanne Bejerrot, Professor, Örebro University, Sweden.	2000 IU	3000 IU
Dr. Antonio D'Avolio, Professor of Pharmacology, University of Turin, Italy.	4000 IU	4000 IU
Dr. Gustavo Duque, MD PhD FRACP FGSA. Chair of Medicine & Director of the Australian Institute for Musculoskeletal Science (AIMSS), The University of Melbourne and Western Health, Melbourne, Australia.	2000 IU	0 IU
Dr. Giovanni Passeri, Associate Professor, Internal Medicine, Dep. of Medicine and Surgery, University of Parma, Parma, Italy.	4000 IU	4000 IU
Dr. Pankaj Kapahi, Professor, Buck Institute for Research on Aging, Novato, California, USA.	4000 IU	
Dr. Giuseppe Poli, Emeritus Professor of General Pathology, University of Turin, Italy.	2000 IU	2000 IU
Dr. Patrick McCullough, MD, Chief of Medical Services, Summit Behavioral Healthcare, Cincinnati, Ohio USA.	4000 IU	50,000 IU
Dr. Prashanth Kulkarni, MD DM FSCAI FACC. Consultant Cardiologist, Hyderabad, India.	4000 IU	4000 IU
Dr. Klaus Badenhop, MD PhD, Professor, Division of Endocrinology & Diabetes, Department of Internal Medicine, Goethe-University Hospital, Frankfurt am Main, Germany.	4000 IU	4000 IU
Dr. José-María Sánchez-Puelles, PhD, Senior Researcher, CIB Margarita Salas, CSIC, Spain	2000 IU	
Dr. Carmelinda Ruggiero, MD PhD, Professor of Geriatric Medicine, School of Medicine, University of Perugia, Italy. Head of the Seniorgeriatric Unit, S Maria Misericordia Teaching Hospital, Perugia, Italy. Disclosure: Occasional consultant for UCB Pharma.	4000 IU	4000 IU
Dr. Jose Manuel Quesada Gomez, MD, PHD, Honorary Professor, University of Cordoba. Maimonides Research Institute, Cordoba, Spain.	2000 IU	^{Calculated} 266µg/ month
Dr. Giovanni Minisola, MD, President Emeritus of Italian Society for Rheumatology. Scientific Director of "San Camillo - Forlanini" Foundation, Rome, Italy.	4000 IU	
Christine French, MS, Research Analyst at GrassrootsHealth Nutrient Research Institute [non-profit], Encinitas, CA, USA.	4000 IU	5000 IU
Dr. Patricia Presbitero, MD, Doctor and interventional cardiologist, New York, USA. Luminitas Scientific Research Board, Rozzano, Milan, Italy.	4000 IU	
Dr. Ken Redcross, MD, Doctor and on-camera medical expert, New York, USA. Disclosure: research advisory board of the Organic & Natural Health Association.	4000 IU	10,000 IU
Dr. Rajeev Venugopal, MBBS FRCS FACS DM. Consultant Plastic Surgeon/ Associate Lecturer in Surgery, University of the West Indies at Mona, Jamaica.	2000 IU	2000 IU
Dr. Gianluca Isaia, MD PhD, Geriatrician, Section of Geriatrics, Department of Medical Sciences, University of Turin, A.O.U. Città della Salute e della Scienza di Torino, Molinette, Turin, Italy.	2000 IU	2000 IU
Dr. Piero Stratta, Professor of Nephrology, University Piemonte Orientale, Italy.	4000 IU	4000 IU
Dr. Ben Schöttker, PhD, Scientist, Division of Clinical Epidemiology and Aging Research, German Cancer Research Center, Heidelberg, Germany.	2000 IU	1400 IU
Dr. Roberto Fantozzi, MD, Full Professor of Pharmacology, University of Turin, Turin, Italy.	4000 IU	2000 IU
Dr. Sheryl I. Bishop, PhD, Professor Emeritus, University of Texas Medical Branch, School of Nursing, Galveston, Texas, USA.	4000 IU	2000 IU
Dr. Wayne Jonas, MD, Professor of Family Medicine, Georgetown University. Former Director NIH Office of Alternative Medicine, USA.	2000 IU	
Dr. Ferdinando Silveri, Medical Director of the Rheumatology Clinic of the Marche Polytechnic University, Ancona, Italy.	4000 IU	
Dr. Vatsalya Vatsalya, MD, Department of Medicine, University of Louisville. National Institute on Alcohol Abuse and Alcoholism NIH, USA.	2000 IU	
Dr. Rachel Nicoll, PhD. Medical researcher, Umeå University, Sweden.	4000 IU	4000 IU
Dr. Raimund von Helden, Dr med. Family medicine. Institute VitaminDelta, Lennestadt, Germany. Disclosure: Institute VitaminDelta sells consumer advice including on vitamin D for modest cost, but with no ties to other commercial interests.	4000 IU	8000 IU
Carole Baggerly, Founder & Director, GrassrootsHealth Nutrient Research Institute [non-profit], Encinitas, CA, USA.	4000 IU	10,000 IU
Dr. Edward Gorham, PhD MPH, Adjunct Professor, University of California San Diego, School of Medicine, Dept of Family Medicine and Public Health, USA.	4000 IU	10,000 IU
Dr. David Verhaeghen, MD, Anesthesiology, Algology and Pain Medicine, Aalst, Belgium.	2000 IU	3000 IU
Dr. Silvia Miglificio, MD PhD, Internal Medicine at University Foro Italico of Roma, Italy. Secretary of the Italian Society of Food Sciences.	4000 IU	3000 IU
Dr. Vitor Oliveira, MD, Internal Medicine, Brazil.	4000 IU	5000 IU
Dr. Djamel Deramechi, MD, Functional medicine. GrassrootsHealth Certified Vitamin D practitioner and Coimbra Protocol Certified Doctor. France.	4000 IU	10,000 IU
Dr. Wim Soetaert, PhD, Prof. Microbiology & Biotechnology, Ghent University, Centre for Industrial Biotechnology and Biocatalysis (inBio.be), Belgium.	4000 IU	5000 IU
Dr. Mark S. Braiman, PhD Professor of Chemistry, Syracuse University, USA.	4000 IU	10,000 IU
Dr. Mibko Roina, MD PhD MHS. Adjunct Professor in General Epidemiology, University of Helsinki. Medical Counselor Ministry of Social Affairs and Health, Finland.	4000 IU	6000 IU
Dr. Manfred Eggersdorfer, PhD, Professor for Healthy Ageing, University Medical Center Groningen, Netherlands, Netherlands. Member of the Advisory Board of the Johns Hopkins Bloomberg School of Public Health. Disclosure: Head of Nutrition Science and Advocacy, DSM Nutritional Products. Member of the scientific board of PM International.	2000 IU	2000 IU
Dr. Chris Newton, PhD, Research director, Centre for Immuno-Metabolism, Microbiome and Bio-energetic Research (CIMMBER), UK.	4000 IU	4000 IU
Dr. Doreen Brodmann, Dr med. Head of Nephrology, Spitalzentrum Oberwallis, Switzerland.	4000 IU	10,000 IU
Dr. Srijit Mishra, PhD, Economics, Director of Development Research, Mumbai, India.	2000 IU	
Dr. Marco Infante, MD, Adjunct Professor of Endocrinology, UniCamillus - Saint Camillus University of Health Sciences, Rome, Italy.	4000 IU	4000 IU
Dr. Sabatier Jean-Marie, PhD HDR. Director of research at CNRS (French National Centre for Scientific Research), Institut de NeuroPhysiopathologie (INP), Marseille, France.	4000 IU	4000 IU
Dr. Mohsin Sidat, MD PhD, University Eduardo Mondlane, Mondlane, Mozambique.	2000 IU	2000 IU
Dr. Dimitrios T. Papadimitriou, MD PhD, Director, Department of Pediatric-Adolescent Endocrinology & Diabetes, Athens Medical Center, Greece.	4000 IU	10,000 IU
Dr. Bodo Schertel, Dr med, Professor, Hochschule Mannheim, Germany.	4000 IU	10,000 IU
Dr. Japen Sagaral, MD PhD MPH, Professor, Department of Microbiology, Eduardo Mondlane University, Maputo, Mozambique.	4000 IU	7500 IU
Dr. Esht Ben Haim, PhD, Economics, Director of Research and Development Research, Nira (IBM), Norway.	4000 IU	50,000 IU
Dr. Martin Hewison, PhD, Professor of Molecular Endocrinology, Institute of Metabolism and Systems Research, University of Birmingham, Birmingham, UK. Disclosure: Received honorarium from Thornton Ross (UK) for online seminar.	2000 IU	2000 IU
Dr. Damien Downing, MBBS MRSB. President, British Society for Ecological Medicine, UK.	4000 IU	8000 IU
Dr. Linda A. Lindsay, MD, Assistant Clinical Professor of Pediatrics, Icahn School of Medicine at Mount Sinai, New York, NY, USA.	4000 IU	4000 IU

Our goal is to change policy and standard of care to save lives and help mitigate the pandemic, not simply to create the longest possible list of names. At this point, we welcome additional signature requests from those likely to help convince decision makers to implement the calls-to-action enumerated in the letter, such as respected professors, medical doctors with demonstrable additional expertise in vitamin D or the treatment of COVID-19, or other notable authorities likely to have relevant influence. If you are such an authority, please fill out [this form](#).