AMERICAN PSYCHOSOMATIC SOCIETY

Newsletter

Summer/Fall 2016

President's Message

Christoph Herrmann-Lingen, MD, APS President

Sometimes I feel disturbed by things going on in the world during these days: Armed and verbal violence appears to be affecting more and more peoples' lives. Or it even takes their lives away. Politicians talk of closing borders or actually do close borders. Scientists are prohibited from visiting other countries. Separation seems to become more promising than collaboration, and illusions of total security increasingly seem to trump freedom: Freedom of travel, freedom of speech, even freedom of science. War is getting more and more into brains and political language as a supposedly legitimate strategy of solving economic and political problems. A desire for strong leaders is growing in many parts of the world and those already in place have to fear little opposition.

One example that concerns us here in Europe is our friend and ally Turkey. After the recent failed military coup, over 1500 deans have been removed from Turkish universities, over ten thousand citizens have been arrested, among them judges, teachers, scientist, and journalists. Many scientists are prohibited from leaving the country and those working abroad are required to return home, including a few colleagues working at our university.

A German journalist who had been working in Istanbul had to leave even months before the failed military coup, because the Turkish government didn't renew his accreditation. He had been living there for a few years and loves the country. In a recent commentary he mentioned that some friends had called him happy for no longer having to live in Turkey. And he summarized his mixed feelings by stating that "for all of us to see, democracy is dying over there - or what has been left of it. The world just stands on the sidelines. And I feel sad for having to be happy not to live in Turkey."

"Feeling sad for having to be happy" - these are strong and touching words. And they sound quite healthy, showing an impressive ability to consciously perceive and express complicated emotions. There are far too many emotions in this world that are neither perceived in such a differentiated way nor expressed appropriately. With emotions being strong drivers for human behavior, unfelt, suppressed or misnamed emotions seem to produce many of the odd things that are currently going on in the world. Affective agnosia or emotional numbing resulting from early or later life trauma, hatred and xenophobia arising out of fear, shame and feelings of humiliation in people who perceive themselves as disadvantaged and often are, all prepare the ground for political extremism and violence from various sides. "Anger kills", as APS past president Redford Williams and his wife Virginia say in their influential book. From the beginning of APS it has been widely acknowledged that strong emotions don't only kill through openly violence but also through more subtle ways of self-harming behavior and through physiological processes that may have been adaptive in our prehistoric ancestors but

are less so or frankly maladaptive in today's societies.

Most emotions are closely related to interpersonal relationships and many are related to adverse health outcomes, especially strong or chronic negative emotions. It has been a merit of APS and its members to scientifically demonstrate and characterize these associations. However, many questions are still unanswered. This may in part have to do with the fact that we are still not particularly good at identifying emotions, especially if they cannot be easily expressed.

The young man who recently shot dead nine mainly young people in Munich before killing himself had obviously seen a psychiatrist before and was diagnosed with a depressive disorder and social phobia. He may have had a positive Beck Depression Inventory and Liebowitz Social Anxiety Scale but in the background there must have been other, possibly missed emotions that made him a gunman on rampage. We miss a lot of unexpressed or unfelt affect also in patients with somatic symptoms. Many of my patients, whether they have organic heart disease or mainly functional somatic symptoms, find few if any words for what they feel beyond the physical pain or discomfort. This may be due to alexithymia or affective agnosia. It may also be culturally unacceptable or personally embarrassing to express "soft" emotions such as sadness, fear or shame. But what we and many others typically observe is that when people learn to feel and express the whole variety of (both negative and positive) emotions, the physical symptoms and maladaptive behavior patterns tend to improve.

APS is in the ideal position to bring together such clinical experience with cutting edge neuroscience and psychophysiology. Our recently adopted strategic initiative to foster affect science in medicine focuses on these core competencies of our membership. It is also a great opportunity for collaborations with like-minded societies: For the 2017 Annual Meeting in Sevilla (Spain) we are working with the European Association for Psychosomatic Medicine (EAPM) in preparing a full-day preconference workshop on "Emotions, Somatic Symptoms and Bodily Distress Syndromes". The 2017 special topic meeting is planned together with the Society for Affective Science (SAS) and will focus on Emotions in Social Relationships and their Implications for Health and Disease.

If we deepen our understanding of the biological processes linking emotions and physiology this may help extend our treatment options for several conditions that contribute substantially to the global disease burden and ever-increasing expenses for the health care systems worldwide.

To further increase international collaborations in psychosomatic and biobehavioral research we have recently decided to partner with the International Society of Behavioral Medicine (ISBM) to offer an international lab exchange program on a competitive basis. Please see the announcement in this newsletter.

As a member society of ISBM, APS has nominated former APS Secretary Treasurer Urs Nater (Marburg, Germany) for the ISBM Outstanding New Investigator Award this past spring and I am very happy to announce that the ISBM has followed our recommendation to award Dr. Nater this prestigious award for his groundbreaking research on biobehavioral associations, including the role of salivary amylase as a stress indicator. Congratulations to Urs!

Technological progress will be of high relevance for getting a fuller understanding of how the variety of emotions occurring during everyday life affects our physiology and health. Equally, technology may help in delivering conventional therapies, such as CBT, to patients who have insufficient access to in-person medical or mental health care. It may help to cross borders and computerized CBT programs have, for example, been used successfully to support traumatized victims of war in Arabic countries. Technology may also help us to fine-tune interventions and may even generate completely new therapeutic paradigms. I feel excited

and proud about the many possibilities our area of research is promising and can hardly await our 2017 Annual Meeting specifically addressing the great opportunities technology may provide for our field.

However, as a clinician I also feel somewhat concerned about the future of healthcare, where technology can do a lot to increase our therapeutic armamentarium but should not (and cannot) replace a trustful provider-patient relationship. Transfer of technological advances into healthcare should always place the patients' needs first. These are not limited to technical cures for physical ailments but also include needs for personal contact with an opportunity to experience and express uncertainty and - sometimes existential - fears arising in the face of serious illness, need for privacy of sensible health data also in times of ever-present mobile health applications, need for guidance in the abundant market of medical “products”, and many more. Also in times of thriving technology development, ethical reflections on the changes and challenges associated with technological progress and “old-fashioned” physician-patient communication remain timely issues.

APS members have been active during all of APS' history in educating healthcare providers about psychosocial consequences of new medical treatments and about helpful provider-patient communication. In one recent initiative we are planning to increase visibility for such efforts. Our idea is to share through our website and other channels links to educational materials developed by our members. Hence, if you have educational materials to publicize, please contact the APS national office or the Professional Education Committee, so we can make other members and the broader public aware of them.

Since space is limited here, I cannot elaborate more on all ongoing activities in today's message, so why don't you visit our website from time to time or attend this year's high-profile special topic meeting on Neuroscience of Pain held on October 15 at the New Marriott Downtown Hotel? Besides cutting-edge keynote lectures there will be sufficient room for inspiring scientific exchange, including - for the first time during a fall meeting - an attractive poster exhibition. Space is limited for this outstanding event but registration is still open.

And don't forget to submit your best recent work for the 2017 Annual Meeting!

I hope to see many of you at the upcoming events and to celebrate APS' 75th anniversary with you next year. It is a wonderful feeling to be connected to the energetic, diverse, and dedicated group of colleagues that make up the APS membership. However, it will become more and more important to stand together and to actively maintain our diversity. So bring your colleagues for the next meeting you are planning to attend! We especially welcome those involved in both research and patient care, because they are so vital for connecting our basic research to the practice of healthcare.

And raise your voices wherever the freedom of science and the freedom of international collaborations get under pressure. There are so many disturbing things going on in our world in these days - and this is not limited to Turkey and the Middle East. So, when thinking of the journalist I mentioned above, I hope there will be no need for me to be happy that my presidency for the American Psychosomatic Society ends next year. However, the political scene might change in such a way and that would really frighten me and make me sad. I can do little about this but explore and express my feelings (which is at least more than just ignoring them) but those of you living in the US can do more. I am wondering how you all feel about the home country of APS in these days and what each of us and we as a group could do to keep your great country on track. Any ideas?

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Newsletter

Summer/Fall 2016

From the Editor's Desk

Aric A. Prather, PhD, APS Newsletter Editor

Another Summer has come and gone and students again fill the halls of our Universities in the U.S. and abroad. While I certainly resonate with those who mark this transition with a hint of sadness and longing, I also find myself invigorated with the feeling of a fresh start and the anticipation of what this new academic year will bring. It is with quite the same excitement that I turn to our APS Society and all of the opportunities and events that lie ahead, from the upcoming Mid-Year meeting (see more information in this issue) to the annual meeting being held in Seville, Spain in March, 2017.

It is an interesting time in our history, both for science and for society. New discoveries are made with regularity, challenging scientific dogma. At the same time, political tensions across the globe set a tenor new to many of us. Such changes are nicely captured and contemplated in the President's Message in this issue. Dr. Christoph Herrmann-Lingen provides poignant context for the challenges and prospects our science and our APS Society face. Please take a moment to read it in its entirety.

APS has a rich history and many of our members have played seminal roles in the shaping of Psychosomatic Medicine and Biobehavioral Medicine. One clear exemplar of such contribution comes from Dr. Redford Williams, who you can learn more about in the "Getting to know…" portion of the newsletter. Also in this issue we continue to look in on laboratories across the APS landscape, this time traveling to Houston, Texas to interview Dr. Christopher Fagundes of Rice University and learn about the exciting goings ons in the Biobehavioral Mechanisms Explaining Disparities (BMED) Laboratory.

In an effort to address important and timely issues in Psychosomatic Medicine, please take a moment to read the contribution by Dr. John Ruiz about the importance of reporting socioeconomic status in your research. Dr. Ruiz formally served as the chair of the American Psychological Association Task Force on Socioeconomic Status. Finally, as always, our esteemed Editor-in-Chief for *Psychosomatic Medicine*, Dr. Wijo Kop, provides us with highlights in the *Journal*. Thanks to all that have contributed to this newsletter. If there is something I'm missing or you have feedback, please contact me directly: aric.prather@ucsf.edu. Have a wonderful Fall!

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American Psychosomatic Society

Newsletter

Summer/Fall 2016

Meet the Lab

Summer is a time for HOT weather, so this edition of "Meet the Lab" section takes us to the Lone Star state of Texas, Rice University in Houston specifically, where summer temperatures regularly top the triple digits. So crank up the AC and, let's meet the...

Biobehavioral Mechanisms Explaining Disparities (BMED) Laboratory

Lab Director: Christopher P. Fagundes, Ph.D.

APS: Who are you and what do you study in the BMED Lab?

CF: I am a tenure track assistant professor in the department of psychology at Rice University. I also have adjunct/visiting professorship positions at Baylor Psychiatry and MD Anderson Cancer Center. After spending a few wonderful years at MD Anderson, I accepted an offer from Rice to help start a health psychology Ph.D. program. It was an exciting offer that I could not refuse given Rice's proximity to the largest medical center in the world, combined with its status as one of the top research universities in the country. Broadly, my research focuses on mind-body interactions among individuals confronting stressful life events. Bereavement is of particular interest as loss events are among life's most stressful experiences. We have found that those who experienced profound early life stress and/or have had troubled personal relationships are at enhanced risk for poor post-loss adjustment. Currently, I have a 3.7 million dollar NIH-funded R01 looking at how relationship insecurity in the context of losing a spouse impacts autonomic activity and inflammation, which is a key biological mechanisms underlying cardiovascular disease, type II diabetes, some cancers, osteoporosis, arthritis, frailty, fatigue, and functional decline. In the area of tertiary cancer prevention, I also investigate the mechanisms that underlie cancer survivorship disparities, and design biobehavioral interventions to prevent recurrence and improve quality of life. In particular, I study why cancer survivors who experienced early life stress and/or low SES are disproportionally burdened by post-treatment symptoms and shorter survival. By detecting who is most vulnerable to poor post-treatment quality of life and recurrence, and identifying the biological mechanisms underlying these outcomes, I create tailored tertiary prevention interventions that reduce cancer disparities.

APS: How is the BMED Lab structured?

CF: Our laboratory is structured in a somewhat hierarchical fashion. Our team currently consists of 3 post-docs, 1 graduate student, multiple full time staff members (both clinical assistant and laboratory technicians), as well as part-time staff members. We also welcome volunteers, and undergraduate interns seeking to go to medical school or graduate school. I try to organize my lab such that a full time employee and a "scientific advisor" (usually a post-doc or advanced Ph.D. student) work together on a study with part time staff and students working underneath them. Currently, we have two major studies structured in this fashion. I

also have a “data team” that is managed by a post-doc and few part time staff members that ensure the data from each study is collected correctly. Finally, I’ve learned from my days at MD Anderson that an administrative coordinator is crucial. So, I have one full time staff member that works in this domain scheduling meetings, helping with grants, and balancing the books.

APS: Are there any unique aspects of this lab?

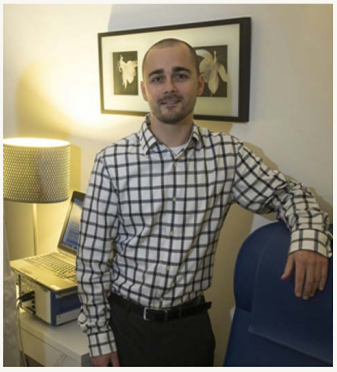
CF: I like to think that our diversity makes us unique in a very positive way. We have people from just about every race/ethnic group. We speak multiple different languages and come from very different backgrounds. Although most of our lab members want to be psychologists, professors, and/or physicians, we also have team members interested in business, law, and physician assistant school. We are unique for Rice given we are really at the interface of medicine and social science. This attracts a lot of interest. We are also unique and very fortunate to collaborate with the Neuroimmunology of Cancer-Related Symptoms (NICRS) Laboratory directed by Annemieke Kavelaars, Robert Dantzer, and Cobi J. Heijnen. Being able to collaborate with such a wonderful group of eminent scholars on a day to day basis helps our science enormously.

APS: Do you have any advice for graduate students, post docs, or early career faculty on how to best set up a lab and how to address any challenges that come with carrying out biobehavioral science in a psychology department?

CF: The first few years of setting up a functional biobehavioral laboratory capable of carrying out NIH studies are difficult. Perseverance is crucial because things will go wrong. Learning to manage and inspire employees, work with colleagues at all levels, and build strong relationships with collaborators takes time. My biggest piece of advice I would give to someone just starting is to view everyone as a potential collaborator and friend. The academic medical environment breeds competition and people worry about keeping their ideas secret. The most successful people I know are always open and excited to share ideas with one another, love the science, and genuinely want to improve public health. Carrying out biobehavioral research in a psychology department rather than a medical school has pros and cons. I have now seen both structures and do not have a strong opinion about which one is better. However, if you are in a psychology department, you must be in close proximity to an academic medical center to conduct biobehavioral science well. In my opinion, it would be virtually impossible to try to carry out this kind of work without the resources of a medical center. At Rice, we have the best of both worlds because the health area is housed in the bioscience research collaborative, which is actually in the Texas Medical Center, but across the street from Rice University. So, it’s fairly easy to collaborate with biological colleagues, while maintaining a strong presence on campus.

APS: I hear that things are bigger in Texas. Is that true of your lab? Er.. how about we just meet some of the members of the BMED lab.

Kyle Murdock, Ph.D. (Post-doc)



I received my B.S. in Psychology from the University of Utah, followed by my M.A. and Ph.D. in Clinical Psychology from Northern Illinois University. I joined the BMED lab as a postdoctoral research fellow in August, 2015. I just received an NIH NRSA to work on Project Heart with Dr. Fagundes. I will be adding measures of executive function to his ongoing R01. I’m particularly interested in the dynamic associations between neuropsychological functioning, stress, interpersonal factors (e.g., attachment orientations),

and immune dysregulation as they relate to health disparities. In my free time, I enjoy running, fishing, snow skiing, and racing cars and go-karts.

Kristi Parker, M.Ed. (Project Coordinator)

I earned my Bachelor of Arts in Psychology with a minor in Education and a minor in Exercise Sports Science from the University of Tulsa, followed by my Master of Education in School Counseling with a PPS Credential from the University of Southern California. After 5 years as a paralegal, I left the legal world to get back to my true passion of psychology. In August 2015, I moved to Houston from California to join the BMED Lab as a Project Coordinator on the NIH-funded R01, Project Heart. I couldn't be happier with my decision as I am immensely interested in the research that we are doing with the bereaved population. In my spare time, I enjoy going to my pool to beat the dreaded summer heat of Houston.

Angie LeRoy, M.A. (Graduate Student)

I am a yoga-practicing, horse-loving, Floridian-turned Houstonian who also loves to do research! I am currently a Ph.D. student in the Social Psychology program at the University of Houston under the advisement of Dr. Fagundes. I received my B.S. in Psychology from the University of North Florida and my M.A. in Psychology from the University of Houston. My ultimate career goal is to be a tenured research professor investigating the mind-body connection, with a program of research aimed at identifying key psychosocial factors (e.g., self-perceived burden) that contribute to physical pain, dysregulated stress responses, and immune dysregulation in chronically ill or underserved populations. I take an interdisciplinary approach to understanding how psychosocial aspects relate to health- studying health-related factors extending from the cellular level (i.e., inflammatory responses) to individual differences, to community and environmental impacts (e.g., SES & neighborhood-level stress). In daily BMED lab operations, I work primarily as the project coordinator of the Relationship Study.

Patricia Morales (Project Coordinator)

I am the Project Coordinator for the National Institutes of Health-funded R01 grant: Project Heart: Bereavement Study. I graduated from The University of Houston in the Fall of 2013 and received my B.S. in Psychology and minor in Human Development and Family Studies. After graduating, I worked as a Project Coordinator at the Anxiety and Health Research Laboratory-Substance Use and Treatment Clinic at The University of Houston. During this time, I also worked on multiple studies, one of which was in the BMED lab at MD Anderson Cancer Center. Subsequently, I became Laboratory Manager of the BMED lab in 2014. At Rice University, I am full manager of Project Heart, overseeing all aspects of the study. I intend to pursue my MBA in Health Administration and continue working in the field of research. Outside the lab, I like to stay active as much as I can. Running is a true passion which keeps me healthy mentally and physically!

Megan Lewis (Undergraduate Research Assistant)

I'm a senior studying sociology and biochemistry at Rice

University. I have been with the BMED Lab since 2014 and spend my time working primarily on Project Heart. I enjoy studying health disparities and I am particularly interested in the influence of early childhood adversity and family environments on adult health status. In the coming year, I am conducting an honors thesis through the Rice Honors Scholars Program. Under the supervision of Dr. Fagundes, I will further investigate the role of inflammation in the association between early life environment and adult health. When I'm not in the lab, I like to spend my time outside or cooking for friends and family.

Maliha Khan (Research Assistant)

I graduated from the University of Houston in the Fall of 2013 with a B.S. in Psychology and a minor in Biology. I am nearing the end of the curriculum for my master's degree in Licensed Professional Counseling from Liberty University. I started working as an intern with the BMED lab at UT MD Anderson Cancer Center in August of 2013, and since then I have taken multiple Project Coordinator roles at various times. She has managed the Couples Study, which examined relationship stress, SES, inflammation, and other aspects of functioning in breast cancer patients and their spouses. I also supervised a study regarding Mindfulness Based Couples Therapy for breast cancer survivors and their spouses, as well as the Vaccine Study. I am currently working with the Relationship Study at Rice University. In August of 2016 I will also start working as a professional counseling practicum intern at the Weinberger Clinic, a private practice counseling clinic in Houston, Texas. In the future I hope to continue working in the field of research in order to improve my counseling techniques and vice versa. I am particularly interested in how early life experiences affect individuals' relationships as adults. In my free time, I enjoy traveling to new places and cooking, and trying out different restaurants in Houston.

Annina Seiler, Ph.D. (Post-doc)

I received my M.S. in Clinical Psychology at University of Zurich, Switzerland in 2012, followed by my Ph.D. at University Hospital of Zurich and University of Fribourg, Switzerland in 2015. Recently, I received a research training grant funded by the Swiss National Science Foundation in order to enhance my scientific profile at a research institution abroad. I will join the BMED lab as a postdoctoral research fellow in September 2016. My current research interests focus on psycho-oncology and psychoneuroimmunology. In particular, I am interested in immunology, cancer biology and behavioral interventions that are intended to improve the health-related outcomes of cancer survivors. I like spending my free time on all kind of sports; I enjoy playing the cello and reading novels.

Diana A. Chirinos Medina, Ph.D. (Post-doc)

I was born and raised in Arequipa, Peru, where I completed my undergraduate work at Santa Maria Catholic University with a major in Psychology. While in Peru, I worked in a large epidemiological study of cardiovascular disease prevalence that sparked my interest in the

relationship between biopsychosocial factors and health. I moved to the US in 2010 to attend graduate school at the University of Miami. I graduated with my M.S. in Health Clinical Psychology in 2012, and received my Ph.D. from the same institution this summer. During my time in Miami, I continued to develop my interest in the bio-behavioral determinants of cardio-metabolic risk among Hispanic/Latinos both in the context of large epidemiological studies and within structured lifestyle interventions. In my time away from psychology, I like to go out with friends, try out new restaurants, play with my dog, and make my annual trip to visit my family in Peru.

Want to know more about the BMED Lab?
Check out the website: http://bmed.rice.edu

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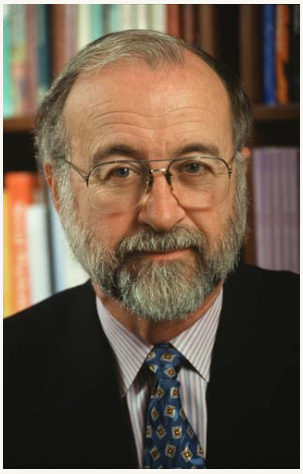
American Psychosomatic Society

Newsletter

Summer/Fall 2016

Getting to Know You...*Williams*



Redford B. Williams, MD is Professor of Psychiatry and Behavioral Sciences, Professor of Medicine, and Director of the Behavioral Medicine Research Center at Duke University Medical Center. He is also Professor of Psychology in Arts and Sciences at Duke and Adjunct Professor of Epidemiology in the School of Public Health at the University of North Carolina in Chapel Hill. Dr. Williams has conducted research aimed at identifying psychosocial factors that increase the risk of medical disorders, the biobehavioral mechanisms whereby such factors contribute to pathogenesis, and the development of behavioral interventions aimed at ameliorating the health-damaging effects of psychosocial risk factors. The author or coauthor of ten books, including *Anger Kills* and *LifeSkills*, and over 200 articles in peer reviewed journals. In addition, Dr. Williams founded with his wife, Dr. Virginia Williams, a company, Williams LifeSkills, Inc., that has as its mission the development, testing and marketing of cognitive behavioral intervention products that will reduce psychosocial risk factors and associated biobehavioral mechanisms in both healthy and patient groups.

APS: Thank you for taking time out of your Summer schedule to contribute to our newsletter, and congratulations on being the recipient of the 2016 APS Distinguished Scientist Award. Many of our Society members likely know you as one of our pioneers in cardiovascular behavioral medicine. Can you give us some insight into your background and what types of research questions got you started with your work?

RBW: It all began the summer before my freshman year at Harvard, when I received a letter announcing a new freshman seminar program in which freshmen would be able to take seminars that were run along lines similar to graduate student seminars. The seminars counted for two course credit (which meant you had to take only two other courses), required one paper per week (which got you out of the freshman English composition/writing course) and included a stack pass to Widener Library (which meant you didn't have to wait hours while a work-study student went and fetched your book). Among those seminars being offered this first time was one taught by a political scientist, McGeorge Bundy (who later became National Security Advisor to presidents Kennedy and Johnson), and one taught by a behavioral scientist, George Goethals. Having been a debater at Northampton High School in Eastville, VA, I was more interested in the political science one, but being also interested in medical school down the road, the behavioral science one was also of interest – so I applied to both. If I had gotten into the political science one, I'm pretty sure I would not be responding here to the question about how I got started in research on cardiovascular behavioral medicine.

I did not get into the political science seminar, but did make it into the behavioral science one. At the end of our first meeting of the seminar George Goethals said, “Your first paper assignment is the mind-body problem.” In response to our bewildered glares he added, “You’ve got your Widener stack passes – get in there, do some reading and turn in your papers on the mind-body problem when we meet next week!” I’m still working on that assignment and haven’t finished it yet, but have made some progress – progress in a career spent doing research on cardiovascular behavioral medicine. For my senior thesis as a Social Relations major I did a study entitled “The influence of superego content on ego function,” and found that the more my student subjects liked aggressive characters from fiction and history and disliked non-aggressive characters, the more overt aggression they reported in their stories about TAT pictures – i.e., instead of comforting her friend who’s draped over the stair rail, the woman is choking her. Another Harvard experience that has played a role, albeit somewhat delayed, in my research career was an introductory biology course in genetics that I was forced to take the fall of my senior year in 1962 because the Natural Sciences 5 course I wanted to take as the last of my four required pre-med courses was filled. One day in mid-October we came to class and there on the blackboard at the front of the class was inscribed, “Dr. Watson has just won the Nobel Prize.” The guy who was teaching my intro genetics course was the discoverer along with Francis Crick of the structure of DNA. It took a few decades for me to really start doing research on the role of genes in cardiovascular behavioral medicine, but I do believe I was imprinted with the need of eventually doing this that morning in October, 1962.

I went to medical school at Yale, where, inspired by Dr. Watson’s example, I spent the summer after my freshman year in a biochemistry lab grinding up dog livers from the surgical lab and trying to purify adenyl cyclase from them and document how it converted ATP into cyclic-AMP. Some of my cyclic-AMP curves were pretty straight lines, but others looked like a shotgun had been fired at the page. By the end of the summer I concluded that molecular biology was not my cup of tea. At a faculty-student reception the following fall I met Pat McKegney, chief of the consultation-liaison service, who suggested that I might interested in doing research with him to see if patients with hypertension who reported more aggression in TAT stories had larger increases in blood pressure when they told their stories. I spent the next two years wheeling a desk-sized automated blood pressure monitor around the wards of Yale-New Haven Hospital giving patients with hypertension word association tests (to aggressive and nonaggressive characters from history and fiction), having them tell TAT stories to pictures that could be depicting aggression or not and undergoing an interview about their current life situation. The results of these studies were published in the *Yale Journal of Biology and Medicine* in 1965 and in the *American Journal of Psychiatry* in 1967.

I remained at Yale for internship and residency in internal medicine, with my final year being spent as a postdoctoral fellow in Mickey Willard’s Continuing Care Program that was centered on a ward where medical and surgical patients who ordinarily would have been discharged to a rehabilitation center or nursing home were able to participate in a therapeutic community while undergoing their rehabilitation programs. My experience during that year taught me that patients with “real” medical illnesses could benefit from a treatment program that incorporated approaches developed in the fields of psychology and psychiatry.

In July, 1970, I was fortunate to be able to move my family – Virginia, 18-month-old daughter Jennifer and our kitty Ubiquity – to Bethesda, MD, where I spent the next two years as a clinical associate in Dr. Frederick Snyder’s sleep program. During this time, in addition to staying up nights monitoring patients undergoing sleep polysomnography and serving as the internist on call for the NIMH inpatient wards, I was able to collaborate with research associates in the molecular biology labs of Irving Kopin and Julius Axelrod. I would stress people (and rats) and collect blood samples that they would assay – using newly developed

state-of-the-art assays – for catecholamines, dopamine beta-hydroxylase and other molecules of interest in the blood and brains (rats only!).

This work led to several publications, including three in *Science*, that led Bud Busse, Chair of Psychiatry at Duke, to offer me a faculty position with features that exceeded those offered by several other medical schools. In July, 1972, therefore, Virginia, Jennifer, Ubiquity and I moved to Durham, where I have held faculty appointments at Duke in Psychiatry, Medicine (I was a board-eligible internist, after all) and psychology and done research in cardiovascular behavioral medicine over the past 44 years. During my early years at Duke I was fortunate to have Bud Busse and Eugene Stead (who had fostered pioneering cardiovascular behavioral medicine research in the Department of Medicine during his years as chair of that department) as mentors. I will always be grateful for the guidance they provided me as a junior faculty member – especially advice to avoid administrative positions and devote all my time and energies to my research program, in which I have been able to apply the many research approaches I had learned about between 1959 and 1972.

APS: You have been active in this field for decades now. What scientific changes have you seen and how have these affected your work?

RBW: The most important scientific change I have seen in the field of cardiovascular behavioral medicine has been the development of molecular genetic approaches that have dramatically expanded of our ability to assess specific genetic variants that influence the expression of phenotypes that are in the pathways to cardiovascular disease. During the first two decades of my time at Duke, it was my understanding that if I wanted to study the role of genes in cardiovascular disease I would need to assemble a sample of 5,000 identical twins and 5,000 fraternal twins, with half of each group being raised together and half raised apart. Then I would be able to ascertain what percent of the expression of any phenotype in the pathways to cardiovascular disease was due to genetic variation. I would not know which particular genes were involved, however, nor what specific changes in gene structure were responsible for the changes in phenotype expression, as well as subsequent development and course of cardiovascular disease.

I have been fortunate to have a program project grant (PPG) from the NHLBI ("Biobehavioral Factors in Coronary Heart Disease") since 1985 to support a research program on the role of psychosocial factors in the development and course of cardiovascular disease. In contrast to the use of daunting twin studies, it was becoming clear in the late 1980s and early 1990s that we could now actually assay genetic variants – ranging from single nucleotide polymorphisms (SNPs) to larger variants (insertion-deletions, variable number of tandem repeats, etc.) – that have been shown to influence the function of the gene and perform statistical analyses to assess their associations with phenotypes of interest.

In my 1993 APS presidential address (1) I proposed that reduced function of the neurotransmitter serotonin in the CNS was one factor that could increase expression of psychosocial risk factors like hostility and depression and the associated biobehavioral factors that mediated their impact on cardiovascular disease development and clinical course. In the late 1990s my colleague Ilene Siegler informed me that other colleagues at Duke were assessing an insertion-deletion polymorphism of the gene that encodes the serotonin transporter (5HTTLPR) for associations with depressive symptoms and that they would be able to assess that polymorphism in subjects being studied in our PPG research if I would like. Given that the "long" (L) allele of 5HTTLPR had been shown to be associated with increased function of the transporter, while the "short" (S) allele had been associated with decreased function – and increased risk of depression in persons exposed to increased levels of stressful life events (2)) – it was clear to me that we could test 5HTTLPR for associations with phenotypes of interest in our PPG, including CSF levels of 5HIAA, an index of CNS serotonin function.

Confirming the influence of 5HTTLPR genotype on CNS serotonin function, we found that the 5HTTLPR SS genotype was associated with higher levels of CSF 5HIAA in women and African Americans but with lower levels in men and whites. (3). We also found that the 5HTTLPR L allele was associated with larger cardiovascular responses to acute mental stress (4). This finding was consistent with other research that found the L allele associated with increased risk of myocardial infarction in two European samples (5, 6).

Based on findings like these, we were able to renew our PPG for the period 2010-2015 with a new title, “Genes, Environmental Stressors, and the Biobehavioral Pathways to CHD.” During this period we have found several gene variants associated with both phenotypes in the pathways to cardiovascular disease as well as the severity and clinical course of disease. For example, we found a functional SNP (rs6318) on the serotonin 2C receptor (5HTR2C) gene that is associated with larger cortisol responses to acute mental stress (7, 8) and, as would be predicted to be the case in persons with larger cortisol responses to stress, increased morbidity and mortality in CHD patients (9).

APS: Most recently you have been very involved in understanding how genetic polymorphisms modulate psychological and behavioral contributors to disease. What lays on the horizon in your work?

RBW: We have just been able to renew our PPG for the period 2016-2021 and will be continuing research to identify gene variants that interact with environmental stressors to increase expression of phenotypes in the pathways to cardiovascular disease and influence, thereby, the development and clinical course of disease. A major focus of our work during the next five years will be identify at the molecular level the mechanisms – e.g., DNA methylation -- whereby gene x environment interactions are actually affecting the expression of pre-disease phenotypes and clinical course. We will also begin the process of translating what we are learning into the evaluation and development of interventions – both behavioral and pharmacologic – to prevent the development of disease and improve prognosis once disease is present. I am very, very fortunate to have colleagues at Duke and elsewhere who are able to conduct studies in these varied areas at a high level of competence.

APS: Is there any advice you wish to impart to more junior colleagues, post-docs, or students who are trying to make a living in psychosomatic medicine?

RBW: As I trust is evident from the review of my background and the types of research questions that got me started in my work, I see two important steps for younger folks who hope to be able to eventually make a living in psychosomatic medicine. The first is to work with mentors who have documented their ability to do research in psychosomatic medicine and related areas – e.g., molecular genetics. The second is for you yourself to begin very early to collect data from living organisms that will help you to answer a research question that has occurred to you in your educational work and conversations with a mentor. Whether your results confirm your hypothesis or not, you will learn something from doing this, something that will point you to the next step(s). With hard work and good luck, these next steps could enable you to make a living in psychosomatic medicine research.

APS: One of the interesting facts about your career is that you, along with your wife Dr. Virginia Williams, started Williams LifeSkills, Inc., a clinical service that provides individuals with techniques to better manage stress and negative emotions. How has this venture influenced your academic work?

RBW: First of all, it’s important to note that it was my academic work – i.e., identifying psychosocial factors like hostility, depression and social isolation that increase risk of developing disease and adverse prognosis once disease is present – that led me to realize that what I was learning in my research had important implications for interventions to

prevent disease and improve prognosis once disease is present. This led me to write a book (10) that reviewed the evidence that hostility is the toxic component of the Type A behavior pattern and included a short section at the end suggesting some ways to reduce one's hostility. The book got pretty good reviews, but did not sell many copies. This led me to conclude that readers are ready to accept that hostility and anger are bad for your heart, and that what they really to read about is how to reduce that hostility and anger and increase one's chances of living longer.

This insight led me to ask Virginia to help me write another book that would have a little bit of the science showing hostility and anger are bad for your heart, but a lot more about what you can do to manage that hostility and anger more effectively. Virginia's PhD is in European intellectual history; and her dissertation focused on how the horrors inflicted by modern war machinery in WWI influenced the quantum philosophers and surrealists to focus on ways of knowing not based on objective observations of the world. Besides being one of the smartest folks I know, Virginia had also been very helpful to me in learning to better manage my own hostility and anger during the first 50 years of our marriage. We worked hard to develop an approach that drew upon both our academic backgrounds to develop a workshop that would help folks better manage their hostility and anger. Based on what we learned in the process of developing this workshop, we did produce the book, *Anger Kills* (11). Following an appearance on Oprah, the book sold pretty well.

This inspired us to start a business – Williams LifeSkills, Inc. – to further develop, test and market the Williams LifeSkills (WLS) workshop. With support from NIH SBIR and STTR grants, we have been able to show that video delivery of WLS training with telephone coaching reduces anxiety, depression and blood pressure in caregivers of a relative with Alzheimer's disease (12). Another clinical trial found that WLS training delivered by high school health/physical education teachers produced increased anger control and reduced anger-in, anxiety and blood pressure in high school students (13). WLS training programs have been shown to produce improvements in psychosocial risk factors among a broad range of populations and cultures, including Hungary and China.

In a randomized controlled trial of WLS training in male coronary artery bypass graft patients in Singapore, those randomized to WLS training showed larger decreases in depression and hostility, blood pressure and heart rate both at rest and during anger recall and larger increases in satisfaction with social support and life than those randomized to usual care. (14) These findings along with those noted above that the 5HTTLPR L allele is associated with increased blood pressure and heart rate responses to mental stress and increased MI risk, lead me to hypothesize that WLS training can reduce blood pressure response to stress in persons with the 5HTTLPR L allele, as well, one hopes, as risk of MI in L allele carriers.

APS: Finally, as many who have been to an APS meeting know, you can become..let's say..animated during the question and answer portions of presentations. What keeps you so passionate about the science and asking the tough questions?

RBW: I first began attending APS meetings in the late 1960s, while still in med school. In those days, there was only one plenary session after another. The Q & A portions of those plenary sessions became quite animated at times, with senior members like George Engel, Mort Reiser, Herb Weiner, Margaret Singer and others leading the way with probing questions. So let us say, I'm trying to maintain that tradition.

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Highlights from ***Psychosomatic Medicine***

Willem (Wijo) Kop, PhD
Editor-in-Chief

Psychosomatic Medicine: Journal of Biobehavioral Medicine publishes the top research in our field. It is a pleasure to let you know that our Impact Factor is now up to 3.64, up from 3.47. The Impact Factor is a commonly used index to rank the importance of journals. There is substantial debate over the usefulness of indices such as the Impact Factor, but the metric is persistent and to some extent useful to compare journals *within* a specific field. It is calculated by adding the total of published articles over a two-year period (say 2013 and 2014) and dividing that number by the number of citations of these articles in the subsequent year (in this case, that would be 2015). There are several other citation indices and "altmetrics" that we monitor to see how well the journal is doing. However, the Impact Factor remains one of the core metrics and we are therefore pleased that it went up this year.

What can you do to help the "impact" of *Psychosomatic Medicine*? The main thing is to submit your best research to the journal. In the long run, high quality is the only factor that drives impact. There are of course other actions that would help. You can, for example, alert your colleagues who are not yet members of the Society to the online open access "article summaries" at the beginning of each issue. These summaries provide a very efficient overview of the recent developments in our field with hyperlinks to the full-text articles

The following articles are just a selection our recent publications:

Effects of Noninvasive Brain Stimulation on Food Cravings and Consumption: A Meta-Analytic Review.
Lowe CJ, Vincent C, Hall PA.
Psychosom Med. 2016 Jul 16. [Epub ahead of print]
DOI: 10.1097/PSY.0000000000000368

The Association Between Psychiatric Disorders and Telomere Length: A Meta-Analysis Involving 14,827 Persons.
Darrow SM, Verhoeven JE, Révész D, Lindqvist D, Penninx BW, Delucchi KL, Wolkowitz OM, Mathews CA.
Psychosom Med. 2016 Sep;78(7):776-87.
DOI: 10.1097/PSY.0000000000000356

Accompanying editorial by Kiecolt-Glaser andÂ Wilson:
Psychiatric Disorders, Morbidity, and Mortality: Tracing Mechanistic Pathways to Accelerated

Aging.
Psychosom Med 2016 Sep;78(7):772-5.
DOI: 10.1097/PSY.0000000000000373

Replication of the Association of BDNF and MC4R Variants With Dietary Intake in the Diabetes Prevention Program.
McCaffery JM, Jablonski KA, Franks PW, Delahanty LM, Aroda V, Marrero D, Hamman RF, Horton ES, Dagogo-Jack S, Wylie-Rosett J, Barrett-Connor E, Kitabchi A, Knowler WC, Wing RR, Florez JC; Diabetes Prevention Program Research Group.
Psychosom Med. 2016 Aug 20. [Epub ahead of print]
DOI: 10.1097/PSY.0000000000000380

Socioeconomic Adversity, Negativity in the Parent Child-Relationship, and Physiological Reactivity: An Examination of Pathways and Interactive Processes Affecting Young Children's Physical Health.
Hagan MJ, Roubinov DS, Adler NE, Boyce WT, Bush NR.
Psychosom Med. 2016 Aug 20. [Epub ahead of print]
DOI: 10.1097/PSY.0000000000000379

Low-Grade Inflammation and Ambulatory Cortisol in Adolescents: Interaction Between Interviewer-Rated Versus Self-Rated Acute Stress and Chronic Stress.
Schreier HM, Chen E.
Psychosom Med. 2016 Aug 3. [Epub ahead of print]
DOI: 10.1097/PSY.0000000000000377

Improvements in Somatic Complaints Among Individuals With Serious Mental Illness Receiving Treatment in a Psychiatric Hospital.
Madan A, Clapp J, Osborne P, Walker C, Frueh BC, Allen J, Oldham J, Fowler JC.
Psychosom Med. 2016 Apr;78(3):271-80.
DOI: 10.1097/PSY.0000000000000298

Accompanying editorial by one of our Associate Editors, Dr. Robert N. Golden.
Disrupting the Adverse Interplay Between Psychiatric and Medical Illnesses
Psychosom Med 2016 Apr;78(3):260-2
DOI: 10.1097/PSY.0000000000000331

Measures of Heart Rate Variability in Individuals With Somatic Symptom Disorder.
Huang WL, Liao SC, Yang CC, Kuo TB, Chen TT, Chen IM, Gau SS.
Psychosom Med. 2016 Jun 29. [Epub ahead of print]
DOI: 10.1097/PSY.0000000000000362

These articles are just selection what has been published recently. In conclusion, we are looking forward to receiving your new manuscripts on the biobehavioral mechanisms of health and disease.

With very best wishes,

Willem J. Kop
Editor-in-Chief

American Psychosomatic Society

Newsletter

Summer/Fall 2016

APS Lab to Lab Exchange

Mary-Frances O'Connor, PhD

The American Psychosomatic Society (APS) has begun an international Lab to Lab Exchange Initiative because of the desire to broaden research and training in psychosomatic medicine across borders and build on the strong existing international connections in APS. We are particularly interested in helping trainees (graduate students, medical students, post-docs, etc.) going to and from the US and Europe as an initial starting point.

There are three prongs to this initiative. First, the most exciting recent development is that the APS Council has approved funding for this initiative. Joining a mechanism developed by the International Society of Behavioral Medicine (ISBM) and the Society for Health Psychology/APA Division 38, APS will grant $3,000 to a trainee to study/work in the lab of an APS member, with applications due March 30, 2017. Awardees will be notified by May 15, 2017. Applications will include a description of research to be done in the areas of health research, clinical behavioral health, or health promotion.

Second, APS will serve as an information clearinghouse by disseminating information on their website about other existing funding programs for exchanges through federal granting agencies, research organizations, and private foundations. See www.psychosomatic.org/jobs/index.cfm for website information. Existing program funding Information was gathered, in part, through a survey of APS members who have recently been a trainee or a mentor in an international exchange.

Third, APS will also serve as a networking hub for the two parties in a lab exchange: 1) lab investigators or mentors who would like to have more trainees in their labs in the future, or have prior experience teaching international trainees, and 2) lab trainees, who have made these exchanges work in the recent past. At the APS annual meeting in Seville, Spain, in March 2017, there will be a roundtable lunch that will provide information about these exchanges. This session takes advantage of the fact that the APS meeting is taking place in Europe, as there may be many individuals interested in such an exchange at this venue. The roundtable setting will also offer an opportunity to convey informal networking information. If you are interested in being part of such an information network, as an interested trainee, mentor, or veteran of an exchange, please email info@psychosomatic.org.

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American Psychosomatic Society

Newsletter

Summer/Fall 2016

Improving the Science of SES through Normative Reporting

John M. Ruiz, PhD
Past Chair, APA Committee on Socioeconomic Status

Reading the APS Newsletter is associated with better health outcomes! Okay, that's obviously not causal but is still likely true. Why? Well, if you are reading this chances are you have an advanced level of education, are not in poverty (student exceptions aside), make a livable income, have health insurance, and generally know to engage in health-promoting behaviors while avoiding key health damaging behaviors. In other words, you are on the higher end of the socioeconomic spectrum and experience the associated health benefits. Indisputable evidence documents socioeconomic status (SES) is amongst the most robust determinants of health and wellbeing across the lifespan. Members of this society have contributed greatly to the science of SES and health, from conceptual and measurement advances to documenting relationships to identifying moderating and mediating factors. This science has led to broader public health awareness and efforts to mitigate the effects of SES disparities. These efforts are multilevel, including local community interventions and national actions such as the Affordable Care Act (ACA).

Despite the breadth of documented associations, the science of SES has significant room for growth and improvement. The 2006 Report of the APA Task Force on Socioeconomic Status (APA, 2007) made a number of recommendations to improve psychological research, education, practice, and policy. With respect to the science of SES, the Task Force strongly emphasized the need to improve the standard or *normative* reporting of SES characteristics in human factors research (see page 27, point 4). These recommendations stem from a 2000 resolution that in part stated, "APA 'will recommend that where possible and appropriate socioeconomic status be identified for published reports of social science research.'"

Why normative reporting? The rationale for this focal recommendation stems from 2 key observations. First, that like genetic codes, SES indices exert a fundamental influence on human health. To support this point, one needs to look no further than the emerging precision medicine movement which emphasizes the importance of variations in genes, lifestyle, *and* environment (https://www.nih.gov/precision-medicine-initiative-cohort-program). This recognition of micro-to-macro system influence implies that SES is likely influencing outcomes, whether measured or not.

The second key reason for normative reporting of SES is to inform the reader of important sample characteristics relevant to application and generalizability. This is akin to the standard reporting of sample age, gender, and race/ethnicity information. Like those variables, SES not only has broad influence but is important to determining the limits of generalizability as well as to making comparisons to other samples of interest. It is important to note that although SES and race/ethnicity are often associated, they are not interchangeable with regards to effects. For an excellent review of this differentiation please see the recent paper

by David Williams and colleagues (2016) in *Health Psychology.*

A snapshot of SES reporting

So, how are we doing with the recommendation for normative reporting of SES? To speak to this question APA's Committee on Socioeconomic Status (CSES; http://www.apa.org/pi/ses/committee/) examined crude reporting frequency of SES terms in all empirical studies (excluding reviews) published in APA journals in the 3-year period from January 2012 to December 2014. Search terms were derived from the 2006 APA Task Force Report. The search was directed to identify terms across the entirety of each publication's text. Therefore, if a relevant term appeared anywhere in a publication, that publication was identified as relevant. Further, the search opted to apply related words, an option available in PsycInfo's advanced search parameter selection screen. This approach identified a total of 9802 publications across 92 outlets. Of these, 1614 (16.47%) made any mention of the Task Force terms anywhere in the publication. Not surprisingly, education-focused journals (e.g., Journal of Diversity in Higher Education, Training and Education in Professional Psychology, etc) had the highest reporting rate given the congruence between their focus with SES. In contrast, over 65% of the journals had 3-year reporting frequencies of 20% or less, including four of the five highest impact factor journals (*Psychological Bulletin JPSP, Psych Review, J of Abnormal Psych)*. *Health Psychology* had a reporting frequency of 20.87% over this 3-year period which provides some degree of insight into the reporting rates in other psychosocial health journals.

Keep in mind the criteria here was simply the presence of an SES term *anywhere* in the text. A more conservative examination focused on reporting SES in the sample descriptions or analyses would likely yield a far lower frequency. Method limitations aside, there is significant room for improvement.

On the Horizon

How do we improve normative reporting of SES indices? One approach is to intervene at the publication level. Building on the recommendations of the APA Task Force, two key changes to APA publication parameters are coming.

First, language describing a normative reporting expectation for SES data will likely be included in the next version of the APA Publication Manual. The APA Publication manual has wide influence as the scientific reporting standard for the social sciences as well as hundreds of journals, books, and other outlets. It codifies the key guidelines for improving clarity and reducing language bias in scientific writing. Inclusion in the manual has the potential to radically improve SES reporting to the degree that it is enforced. Therefore, a complementary second effort is to engage the journals themselves.

Recently, APA's Council of Editors agreed to implement a reporting expectation whereby authors will report relevant SES data/characteristics in a manner congruent with the reporting of other key demographic data or provide a rationale for not including (e.g., historical data collection limitations). Operationally, this will likely be communicated on the submission portal and in editorial review letters. This action provides an implementation mechanism to ensure that the changes are adhered to. If these efforts are successful, they may serve as an example for other academic reporting outlets to follow.

Focal efforts to improve the science of SES began over 2 decades ago with the formation of committees and task forces to examine the issue. Over that time the field has made remarkable advances in our understanding and ability to mitigate the effects of SES. The ACA alone has led to health insurance coverage for an additional 16.9 million people since 2009, in part based on the research and policy work of APS members. Change is slow but the hope is that normative reporting of SES as described here will facilitate greater scientific clarity and precision with further downstream benefits.

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*Special thanks to Christian Goans, University of North Texas, for his work compiling the data on reporting frequency.

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