

SPOTLIGHT: Dr. Ralph Schumacher

H. Ralph Schumacher, Jr., M.D. started at the Philadelphia VA Medical Center in 1967 as its first rheumatologist. He brought in the first fellows in 1969 and received a prestigious VA grant in 1978 to set up the Rheumatology-Immunology Center which established a cutting edge program for rheumatologists, orthopedists, physical therapists, occupational therapists, pathologists, psychiatrists, and technicians to work collaboratively providing treatment for arthritis patients. Dr. Schumacher organized the first national Organization of VA Rheumatologists (now VARC) as part of this VA grant.

With a background in pathology and electron microscopy from fellowship training at Robert Breck Brigham Hospital and Harvard Medical School, Dr. Schumacher became a pioneer in use of electron microscopy for studies on synovium and synovial fluid, using this new technology to look at very early arthritis to try to find its underlying causes.



Pictured from left to right: Janet Dinnella, Gilda Clayburne, Dr. H. Ralph Schumacher, and Katherine (Taffy) McKenna

In 1969, when the Philadelphia VA started building a research center, the design included a room adjacent to his laboratory especially for his electron

microscope. The microscope, sometimes fondly called the orange monster, arrived at the VA in 1974 and was

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AAHRPP Site Visit

Philadelphia VA Medical Center had a successful accreditation site visit by Association for the Accreditation of Human Research Protection Programs (AAHRPP) on May 18-20, 2011. The two-member site visit team reviewed our human subject protection program documents and processes. They also met with over twenty individuals, including research investigators, IRB members and staff, as well as Medical Center and Research leadership. PVAMC was notified of two minor issues needing to be addressed. Our response was submitted and we await a September 2011 Council meeting. We are expecting Full Reaccreditation. Congratulations go to the staff in the Research and Development Office for a job well done!

Office of Research Oversight Site Visit

On April 25-29, 2011 Philadelphia VA Medical Center had a site visit by the Office of Research Oversight Research Information Protection Program (ORO RIPP) team. The site visit team reviewed documents, toured the Research Building and met with several members of Research and Medical Center leadership. Based on the report we received we have twenty items to address. We submitted our initial response to some of these items on July 1, 2011. We noted that several items have been addressed and others are in process of resolution. Our next response to ORO is due in September, at which time we need to update them on the status of addressing the remaining issues noted in the report.

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used extensively. Gilda Clayburne, Dr. Schumacher's lab technician of now over 40 years, was the person responsible for maintaining the "orange monster." The microscope was retired recently as Dr. Schumacher prepares to move to newly renovated space. The technology paid off in numerous studies and clinical reports. One example, using electron microscopy and biochemistry, Dr. Antonio Reginato and Dr. Schumacher found liquid lipid crystals (phospholipids) that can be phagocytized by white cells and might be a cause of a previously unrecognized crystal-induced arthritis. Currently, by reviewing his extensive collection of photographs of specimens obtained from the microscope, Dr. Schumacher is re-examining the role of cell derived microparticles as important contributors to inflammation.

Dr. Schumacher is well known for his work on crystal-induced arthritis, particularly gout and pseudogout. He demonstrates the value of synovial biopsy and arthrocentesis in diagnosis and trains physicians in identification of crystals. For many years, he, with Gilda Clayburne's and former fellow, Dr. Lan Chen's assistance, gave workshops on synovial fluid analysis and crystal identification at the American College of Rheumatology's (ACR) annual meetings. He continues to teach the techniques to the new VA and Penn fellows. He is director of the University of Pennsylvania's synovial fluid analysis laboratory and is sent interesting or unexplained synovial fluid and synovium samples from physicians around the world. He is on the board of the Gout and Uric Acid Education Society and edits Gout sections for Up-To-Date, an online evidence-based, peer reviewed, resource. He has written over three dozen papers on crystal arthropathies.

In addition, he has published over 550 peer reviewed manuscripts on a broad range of other topics including acupuncture, chlamydia in reactive arthritis, ankylosing spondylitis, rheumatoid arthritis, PCR methodology, and patient education. He has authored eight books and has been editor and co-editor of the Primer on the Rheumatic Diseases.

He is the founding editor-in-chief of the Journal of Clinical Rheumatology, started in 1995 and based here at the Philadelphia VA. This is the official journal of the Pan American League of Associations of Rheumatology (PANLAR). With his editorial assistant, Katherine McKenna, he processes over 30 manuscripts per month.

Dr. Schumacher is passionate about research, about looking below the surface, finding new puzzles to solve, and about inspiring others to also become passionate scientists. Two life changing experiences took place during medical school at the University of Pennsylvania. One was while researching cures for Kwashiorkor in a Guatemalan village, and the other was while

working as an extern in the Taliuhina Indian Hospital in Oklahoma. This first hand exposure to practicing medicine in settings very different from his previous U.S. hospital experience fired his interest in other cultures and led to his life-long commitment to combine his desire to pass on his love of research with his curiosity about medicine in other parts of the world. Throughout his career he sought out opportunities to encourage and mentor physician researchers from around the globe. As a result, he has now mentored over 200 scholars in over 30 countries.

Dr. Schumacher received many national and international honors, including the Hench Award of the Association of Military Surgeons and the American College of Rheumatology Klemperer Lectureship Award. He is a Master of the ACR and PANLAR, which is the rheumatology society of all countries in the Americas.

A quick look at his schedule of the last ten years shows Dr. Schumacher giving presentations in 15 foreign countries and a dozen U.S. states. He was a keynote speaker at the ACR's 75th anniversary meeting here in Philadelphia in 2009, giving a talk on arthritis in the 20th century.

From 2005 to 2010 he led Outcome Measures in Rheumatology's (OMERACT) Special Interest Group on gout. He continues this work with financial support from ACR/EULAR (The European League Against Rheumatism). Although Dr. Schumacher "retired" several years ago, relinquishing his VA salary but continuing on the Penn faculty, he actively continues scholarly work as principal investigator on several funded and investigator initiated studies at the VA and Penn, and regularly serves as attending physician for 1st and 2nd year fellows at the VA.

His current research projects include a VA Cooperative Studies Program rheumatoid arthritis study; a neutraceutical-company funded study looking at the effectiveness of a tart cherry juice on osteoarthritis of the knee; a gout education study; and a study comparing RA patient and physician expectations.

Non-medical interests include an award winning terraced garden he and his wife developed in back of their home, and a love of basketball, which he played in college and continued into his 60s as a regular member of an over-30 league. He can be seen on his website (www.med.upenn.edu/synovium/abouthrs.shtml) taking a shot with his Taiwanese colleagues, where, while on sabbatical in 1981, he set up the first rheumatology division in Taiwan.

This website (www.med.upenn.edu/synovium), another hobby, focuses on synovial biopsy, synovial fluid, synovium, and arthrocentesis, and contains hundreds of labeled photos of tissues, fluids, and clinical aspects of various rheumatological conditions. Dr. Schumacher intends this as a teaching tool and legacy for all those curious to look deeper, to see what's below the surface.

Summaries of recent publications by investigators at PVAMC

Philadelphia VA Medical Center: Publications (summarized June 2011)

Article title: State adoption of nursing home pay-for-performance

Associated study title: Not applicable

Funding source(s): Institute on Aging (University of Pennsylvania); Center for Health Equity Research and Promotion (CHERP), VA Health Services Research and Development (HSR&D)

Principal investigator: Rachel M. Werner, MD, PhD

Reference: Werner RM, Konetzka RT, Liang K (2010) Medical Care Research and Review 67, 364-77. Institutions at which the authors are based comprise the Philadelphia VA Medical Center, the University of Pennsylvania, and the University of Chicago, Illinois

Summary of findings: The aim of this work was to explore the extent to which 'pay-for-performance' (P4P) is being implemented in nursing homes funded by Medicaid in the US. P4P is based on the principle that payment for clinical services (including, as in the present instance, nursing home care) reflects quality of care, rather than intensity (quantity) of services. The authors conducted a telephone survey of Medicaid office administrators in all 50 states, to document the extent of P4P implementation in nursing homes between the years 2000 and 2008/2009. It was found that 9 states had implemented such a program in nursing homes (the program had been later discontinued in one of these states), and that its introduction was planned in 5 additional states. Criteria for P4P were not uniform between the various states that had implemented it; they included customer satisfaction, staffing level, staff retention and satisfaction, clinical measures (use of physical restraints, presence/absence of in-dwelling bladder catheters, pain, and pressure sores), and conversion of nursing homes to a 'home-like' environment (as exemplified by resident autonomy, resident privacy, flexible dining schedules, and presence of children, pets, and plants). The authors did not aim to study whether P4P improved nursing home care. This article includes a review of the reportedly sparse literature on whether or not P4P can improve care in nursing homes.

Contact person: Dr. Rachel Werner (215-898-9278; rwerne@mail.med.upenn.edu)

Article title: Psychiatric status and work performance of veterans of Operations Enduring Freedom and Iraqi Freedom

Associated study title: Quality management of the behavioral health laboratory

Funding source(s): VISN-4 Mental Illness Research, Education, and Clinical Center (MIRECC); VISN-5 MIRECC; VISN-2 Center for Integrated Healthcare; Fisher Fund of the Tufts Medical Center

Principal investigator: David W. Oslin, MD

Reference: Adler DA, Possemato K, Mavandadi S, Lerner D, Chang H, Klaus J, Tew JD, Barrett D, Ingram E, Oslin DW

(2011) Psychiatric Services 62, 39-46. Institutions at which the authors are based comprise VA medical centers in Philadelphia, Pittsburgh, Syracuse (NY), and Baltimore (MD), the Universities of Pennsylvania, Pittsburgh, and Maryland, Syracuse University (NY), and Tufts University (Boston, MA)

Summary of findings: The aim of this multi-center study was to explore the relationship between psychiatric diagnosis and impaired work functioning in veterans of Operations Enduring Freedom and Iraqi Freedom (OEF-OIF). A total of 797 OEF-OIF veterans, of whom 473 were employed, were included in the study, which involved a behavioral health interview aimed at evaluating psychiatric and health status and work impairment as determined via a work limitations questionnaire (WLQ). It was found that major depressive disorder (MDD), post-traumatic stress disorder (PTSD), and generalized anxiety or panic disorder were associated with impaired ability to work effectively. Alcohol dependence and illicit drug use also compromised the ability to work. Productivity losses in the workplace, in the population studied, were, on average 4 times greater than those in a previous study of non-veteran employees with no psychiatric disorders. Percentages of individuals with various conditions, in the current study, were as follows: MDD 35%; PTSD 47%; generalized anxiety disorder 42%; panic disorder 8%; alcohol dependence and/or illicit drug use 18%; previous severe head injury 39%. The findings indicate that psychiatric disorders have a negative effect on work performance in the veteran population (and presumably also in non-veterans), with resulting impairment in veterans' ability to maintain gainful employment and reintegrate into civilian life. The authors also noted an appreciable degree of resilience among the OEF-OIF veterans interviewed, of whom 29% had no evidence of a psychiatric illness.

Contact: Dr. David Oslin (215) 823-5894; Dave.Oslin@va.gov

Article title: Spontaneous smoking cessation before lung cancer diagnosis

Associated study title: Smoking cessation in lung cancer: A pilot study

Funding source(s): VISN-4 Competitive Pilot Project grant

Principal investigator: Barbara G. Campling, MD

Reference: Campling BG, Collins BN, Algazy KM, Scholl RA, Lam M (2011) Journal of Thoracic Oncology 6, 517-24. Institutions at which the authors are based include the Philadelphia VA Medical Center (PVAMC), the University of Pennsylvania, Thomas Jefferson and Temple Universities, Philadelphia, and Queen's University, Kingston, Canada

Summary of findings: The authors set out to pursue an anecdotal observation that many patients with lung cancer stop smoking without difficulty before the tumor is diagnosed, and before the cancer causes symptoms. To this end, the authors recruited 115 veterans with lung cancer, all of whom had been smokers and 55 (48%) of whom stopped smoking before diagnosis; of these 55 individuals, only 6 had symptoms from their lung tumor when they stopped smoking.

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Submission Deadlines

- All due dates are the 15th of the month and will adhere to this calendar, unless specifically announced in an RFP.
- For a clarification of this calendar as it relates to HSR&D, please see the funding section of the HSR&D Website.
- Biomedical and laboratory/Clinical Science <http://www.research.va.gov/funding/solicitations/default.cfm#BLRD/CSRD>
- Health Services <http://www.research.va.gov/funding/solicitations/default.cfm#HSRD>
- Rehabilitation <http://www.research.va.gov/funding/solicitations/default.cfm#RRD>

JULY	AUGUST
None	None
SEPTEMBER	OCTOBER
<ul style="list-style-type: none"> • BLRD, CRSD - Proposals Due • HRSD, RRD & CD Reviews 	<ul style="list-style-type: none"> • All Services • (CD) LOI Cut-off for December Proposals • RRD - LOI Cut-off for December Proposals
NOVEMBER	DECEMBER
<ul style="list-style-type: none"> • HSRD – Abstracts and Intent to Submit due May 1 	<ul style="list-style-type: none"> • All Services – CD Proposals • HSRD, RRD – Proposals Due (Merit Review and NRI) • BLRD and CSRD Reviews • RRD <ul style="list-style-type: none"> -Research Career Scientist -Proposals do require an LOI

Recent publications at PVAMC *continued from page 3*

As control populations, the authors recruited 101 veterans with prostate cancer and 99 with myocardial infarction (MI). Median intervals between smoking cessation and diagnosis were 2.7 years in patients with lung cancer, 24.3 years for individuals with prostate cancer, and 10.0 years for patients with MI. The relatively short interval for those with lung cancer suggests that the tumor was already present, though asymptomatic and undiagnosed, in at least some of the lung cancer patients when they stopped smoking. Among individuals who were current smokers when their lung cancer was diagnosed, 38% had reduced their tobacco consumption by > 50% during the year before diagnosis of the tumor; in contrast, a reduction in tobacco consumption occurred in only 17% and 4% of current smokers with prostate cancer and MI, respectively, during the year before their illness was diagnosed. The study included a standardized test for

severity of nicotine dependence. In patients with lung cancer, this severity was similar in those who stopped smoking and in those who continued to smoke, suggesting that ease of ‘quitting’ smoking was not related to severity of nicotine dependence. The authors raise the possibility that ‘easy, spontaneous’ smoking cessation, in a long-term smoker, may actually be an early indicator of an unrecognized lung cancer. Furthermore, they speculate that some lung cancers secrete a ‘substance’ that interferes with nicotine addiction, thereby reducing or removing the urge to smoke.

Contact person: Dr. Kenneth Algazy (215-823-6352; Kenneth.Algazy@va.gov)

Awards and Grants

Dr. Diane Richardson, CPPF Grant entitled, “Comparative Effectiveness of high vs. Standard Dose Flu Vaccine.”

New Staff!

CHERP

Sean Breslin, Program Specialist

PADRECC

Dr. James Morley, MD, PhD – Staff Physician and Researcher
Stephanie Pawlowski – Research Coordinator

Compliance Tidbits!

- All research study submissions that have any type of grant as funding source the full grant must be part of the submission packet to the appropriate R&D subcommittee.
- All researchers (human, animal/ bench) should maintain a regulatory binder with essential documents related to the research. Regulatory documents must be organized, complete an available to VA and federal oversight monitors and auditors. A list of what should be maintain in a regulatory binder is posted on the research compliance intranet site under guidance.

Safety Tidbit

Housekeeping: There is a definite relationship between safety performance and cleanliness in the laboratory. When housekeeping standards fall, safety performance inevitably deteriorates. The work areas should be kept clean, and chemicals should be properly labeled.

Advances & Innovations is published quarterly for research faculty and staff at the Philadelphia VA Medical Center.

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Research Mission

To develop and conduct research representing a continuum of programs that integrate clinical needs and research inquiry to enhance the quality of health care delivery to Veterans.