An offer he could not refuse: prominent epidemiologist Brad Pollock returns to UC

THE OPPORTUNITY TO BUILD CONNECTIONS
within the UC System proved too difficult to resist for Brad H. Pollock, Ph.D., M.P.H., recently appointed chair of the Department of Public Health Sciences.

As the founding chair of the Department of Epidemiology and Biostatistics at the University of Texas Health Science Center in San Antonio, where he directed two core programs at the CTSA-funded Institute for Integration of Medicine and Science (IIMS), Pollock was well entrenched in a professionally satisfying career. Specializing in pediatric cancer epidemiology, he had developed nationwide prominence conducting and participating in multi-institutional studies in oncology, diabetes, HIV, and obesity. When he received a cold call from a recruiter, he was not in the market for a new position. But after reflecting upon the possibilities that UC Davis would offer, he changed his mind.

Pollock found himself drawn to Sacramento by the reputation of the UC Davis Department of Public Health Sciences and the strength of its three cores – epidemiology, biostatistics, and environmental and occupational health. His prior collaborations with UC Davis faculty members through CTSA committee work made the position even more attractive.

Notable among them is CTSC Director Lars Berglund, with whom Pollock had become acquainted by virtue of Berglund’s participation on the external advisory board of the IIMS in San Antonio. To Pollock, the opportunity to strengthen his collaborations through another CTSA center was magnetic. The work at UC Davis’ NCI-designated Comprehensive Cancer Center greatly impressed Pollock, a native Southern Californian who obtained his bachelor’s degree at UC Irvine and earned his master’s and doctoral degrees at UCLA, and whose family members remain in California. The personal reasons for him to join UC Davis outweighed any advantages of remaining in Texas.

Pollock would not have come to UC Davis, though, if it were not for UC Davis Health System’s institutional investment and commitment to biomedical informatics, and if the Department of Public Health Sciences was not as highly regarded as it is. With his department’s stellar reputation and complement of faculty expertise,

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The art of team science advances scientific discovery

**MULTIDISCIPLINARY RESEARCH** and collaboration are core values of translational science. A well-honed, multidisciplinary team can advance scientific discovery beyond what is usually possible by a single investigator working in a silo.

But creating an effective team takes more than simply identifying a group of potential collaborators. Tina Palmieri, the assistant chief of burns at Shriners Hospital for Children – Northern California and the director of the UC Davis Regional Burn Center, embraced the value of collaborative research to a good end. Her success was recognized by Fred Meyers, vice dean of the UC Davis School of Medicine, who lauded, “Palmieri has become the national leader for conducting multicenter clinical trials in burns.” Palmieri attributes much of this success to creating a team environment that works.

Early in her career path, Palmieri recognized that building an optimal team meant bringing together people from diverse disciplines with different areas of expertise and communication styles. She chose to specialize in burn care in part because it epitomizes team medicine – every person who cares for a burn patient is essential. Likewise, when considering research opportunities, Palmieri believed that a team science approach would facilitate discovery, understanding and translation.

To broaden her training, Palmieri enrolled in the UC Davis Mentored Clinical Research Training Program (MCRTP), which focuses on team science. During her time in the program, Palmieri learned not only the mechanics of science, but also the philosophy of team science. This training provided a solid foundation for her future multicenter clinical trial work.

When she became a founding member of the American Burn Association Multicenter Trials Group (MCTG), Palmieri found the perfect arena to build and organize collaborative research teams among burn centers. Writing the group’s first paper on toxic epidermal necrolysis, injured soldier) that enhances the group’s ability to conduct medical research on burn injuries.

At the heart of the MCTG, however, is the UC Davis Department of Surgery Data Coordinating Center – and the belief that results are only as good as the data upon which they are based. Obtaining high-quality data in an analyzable format is of the highest priority. To this end, a multidisciplinary team consisting of clinicians, biomedical informaticists and biostatisticians was assembled. These disciplines provide expertise from creation of data collection instruments in a secure environment, through data input to analysis.

From the beginning, the research team worked together to design data collection tools that met the needs of each discipline interacting with the data. Director of Research Operations MaryBeth Lawless, R.N., a key leader in the development and coordination of the team as well as a liaison to researchers, ensured that the data collection tools captured what was envisioned by the principal investigator.

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DIRECTOR’S MESSAGE continued from page 1

Lars Berglund, M.D., Ph.D.

networks that comprise PCORnet. This program utilizes a distributed architecture to integrate data from existing networks to expand research opportunities.

Another national effort, the 21st Century Cures Initiative, is underway as well. After nearly a year of listening to patients, innovators, researchers, providers, consumers, and regulators, a bipartisan Congressional committee released a document marking continued progress in this undertaking. The goal of this effort is legislation that would include provisions to streamline, modernize, and foster research to accelerate the movement of treatments to the marketplace. The report emphasizes Discovery, Development, and Delivery.

The CTSC has been involved in a number of collaborative projects consistent with the recommendations outlined in the 21st Century Cures Initiative. Examples currently in progress across the consortium of UC medical campuses (known as UC Biomedical Research Acceleration, Integration, and Development or “UC BRAID”) are programs such as Drug and Device Discovery and Development (“D4”), UC Research Exchange (“UC Rex”), IRB Reliance, and the development of master research contracts with sponsors.

As an institution, UC Davis has embarked upon several new research programs for personalized medicine and the NIH Brain Research through Advancing Innovative Neurotechnologies (“BRAIN”) initiative.

All of these efforts align with the goals of the Clinical and Translational Science Awards, our funding mechanism. Although challenges still exist, biomedical research is valued, necessary, and continuing to undergo transformation in order to become more resilient and responsive to the needs of the community. As an institutional resource, the CTSC is poised to support investigators by providing infrastructure and expertise. Our mission is to build research teams of the future to improve human health. With that in mind, and in the spirit of collaboration and engagement. How can we help you?

Team Science Continued from page 6

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Sandra Taylor Ph.D., lead biostatistician, developed data analysis plans and contributed to data collection from the perspective of facilitating interim and final data analyses. Prior to each project, Taylor examined the study protocol to identify and address any potential design flaws prior to implementation.

A team of biomedical informaticists (Deborah Lee, M.B.A. and Brian Chan, Ph.D.) developed secure electronic databases that optimized data capture and accuracy, as well as enabled efficient interim and final data analyses.

Members of each discipline play a critical role in producing the high-quality data necessary for transformative research. Collaboration among team members and the principal investigator ensures fidelity with the protocol throughout the process.

Thus far, the group has conducted seven multicenter studies involving 1,080 patients in 23 different states and three countries; two national registry studies involving more than 6 million records.

A group of subject matter experts, each committed to excellence and achieving the bigger goal, underlies the success of this story. “Each person on the data team provides valuable input on the project. Each is empowered to express their viewpoint, and we address concerns together as a team. The success of the project depends on it,” said Palmieri.

Team Science

Keys to building a successful research data team:
• Identify ALL the disciplines and individuals needed to conduct the trial, including physicians and nurses, biostatisticians, biomedical informaticists, and research coordinators.
• Unite the team to identify goals and priorities for the group. Quality of data collection and analysis should be the priority.
• Develop rules for communication and set up regular meetings. Give everyone a voice at the table.
• Periodically reassess study progress, identify areas of deficiency, and work together to resolve issues.
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