

Translational Research and Innovation

The Wallace H. Coulter Foundation awarded UVa. BME \$10M in 2011 to endow the Translational Research Partnership Program in Biomedical Engineering. The funds were matched by the University to create a \$25M endowment to support Translational Research. The task facing the department is twofold: support research projects that are explicitly translational in nature, and in the process, test and validate models of translational research that can be widely adopted.

As the University's Coulter Program Director, David Chen is the primary resource for the University and the Coulter Foundation's efforts to enable and lead an innovative translational research process. The U.Va.-Coulter Partnership supports \$700K in projects each year. The translational nature of these projects is reinforced by requiring that they be led jointly by investigators from the BME department and U.Va. clinical practitioners. Over the last 10 years projects have resulted in 14 startups, 10 licenses to industry, and over \$40M in NIH funding.

Design and Innovation

Medicine is evolving very fast as new insights are changing the paradigms of clinical care. Furthermore, policy changes are also prioritizing quality, value, and outcomes. To address these changes, David co-instructs the BME Design and Innovation course with Dr. Timothy Allen. He also mentors Capstone Design Projects and facilitates seminars and independent studies. David also co-leads the BME Design Lab with Dr. Timothy Allen. Here students can shadow UVa doctors, nurses, and clinicians. Design interns also work on new technologies including surgical tools, pediatrics assist devices, and embedded computer sensors.

In the School of Medicine, David co-leads the "Medical Innovation and Human Centered Design" which features direct interaction with medical school students at UVa. This unique program collaborates with the School of Architecture and School of Nursing at UVa.

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