



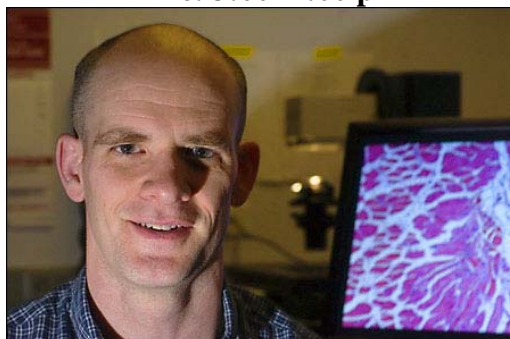
Department of Mechanical Engineering and Mechanics  
Drexel University  
<http://www.mem.drexel.edu>

## MEM Distinguished Lecture

Friday, October 2<sup>nd</sup>, 2009

Location: Bossone- Mitchell Auditorium

Time: 3:00- 4:00 pm



David Mooney, Ph.D.

Harvard University, Cambridge, MA 02138 USA

### *Materials to program cells in situ for regeneration and immunotherapy*

There are hundreds of clinical trials of cell therapy currently underway but simple cell infusions lead to large-scale cell death, little control over cell fate, and a typically poor clinical outcome. We propose a new approach, in which material systems are first used either as cell carriers or attractors of host cell populations, and in either case the material then programs the cells in vivo and ultimately disperses the cells to participate in regeneration or immunotherapy.

**Biographical Sketch:** David Mooney is the Gordon McKay Professor of Bioengineering in the School of Engineering and Applied Sciences at Harvard University, and a faculty member of the Wyss Institute for Biologically Inspired Engineering. His laboratory is developing materials to direct the trafficking and fate of cell populations in the body. The applications of these systems include the regeneration of damaged or diseased tissues (tissue engineering), or the targeted destruction of undesirable tissue masses in the body. Dr. Mooney's education and training is from the University of Wisconsin, Massachusetts Institute of Technology, and Harvard Medical School. He is a Fellow of the American Institute of the Medical and Biological Engineering, a NIH MERIT awardee, and has received the Society for Biomaterials Clemson Award and AADR/IADR Distinguished Scientist Award. His inventions have been licensed by several companies for commercialization, and he is active on industrial scientific advisory boards.

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