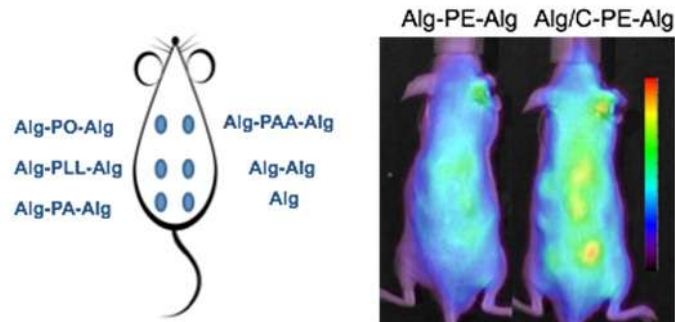


Of Mice and Materials



Fluorescent in vivo imaging of the protein alginate (Alg) and alginate + collagen (Alg/C) modified with polyelectrolytes (PE). Poly-L-ornithine (PO), poly-L-aspartic acid (PAA), poly-L-lysine (PLL), and poly-L-arginine (PA) were attached to the alginate through electrostatic interactions. The mice were injected with a fluorophore that is sensitive to enzymes secreted by immune cells. The fluorescent images show the magnitude of the host response to the functionalized alginate.

September 14, 2012

One of the most exciting aspects of materials science and engineering (MSE) is that it keeps changing. Not so long ago, metals and ceramics were the central focus of MSE departments. Over the years, polymers, composites, and semiconductors were added to the basic MSE canon. The MSE Department at ISU has followed these changes. From its beginnings as the Department of Ceramic Engineering in 1906, to the addition of the Department of Metallurgy in the early 1950s, to the creation of the Department of Materials Science and Engineering from those two programs in 1976, the department has evolved to be the diverse department it is today.

[Read more.](#)

MSE Highlights

- No major league baseball player has ever batted "500" in his career, but MSE Distinguished Professor and National Academy of Engineering member [Karl Gschneidner, Jr.](#) hit 500 last month, and his count will keep rising. Congratulations to Dr. Gschneidner on the publication of his [500th refereed journal article](#) on August 16, 2012! This is a milestone very few professors ever hit. The 500th article was published in APPLIED PHYSICS LETTERS 101, 071906 (2012). It is entitled: Barocaloric effect in the magnetocaloric prototype Gd₅Si₂Ge₂. The co-authors are: Suheyla Yuce, Maria Barrio, Baris Emre, Enric Stern-Taulats, Antoni Planes, Josep-Lluís Tamarit, Yaroslav Mudryk, Karl A. Gschneidner, Jr., Vitalij K. Pecharsky, and Lluís Manosa.
- [E-Week 2012](#) runs from September 18-29 and will include a kick-off [performance by Bill Nye the Science Guy](#), the annual [Engineering Career Fair](#) and [Charity Ball](#), and a new event called "Honor the Alumni" that offers breakfast and tours of the College of Engineering for visiting alumni.