Dr. Joseph A. Madri, Professor of Pathology and Director of Medical Studies (Pathology) at Yale University, has won the 2001 Chugai Award for Meritorious Mentoring and Scholarship in Investigative and Experimental Pathology.

Dr. Madri has an impressive list of scholarly accomplishments, and his list of mentorees is a Who’s Who of Experimental Pathology. He is also co-founder and member of the Board of Directors of Alexion Pharmaceuticals, a pioneering firm in the field of anti-inflammatory drugs.

Nominating Dr. Madri for the second annual Chugai Award, Dr. Jon S. Morrow, Chair and Chief of Pathology at Yale describes him as "one of this nation’s leading scientists, and … a gifted and sought-after mentor." Dr. Madri’s more than 175 peer-reviewed publications over the past 20 years include a seminal work on the molecular nature of the basement membrane, on which endothelial and epithelial cells reside. He revealed for the first time the laminin subdomain structure and the important role that the laminin subunits play in the biology of the extracellular matrix. A related paper, with Lu et al. demonstrates for the first time that integrin engagement mediates tyrosine dephosphorylation of PECAM-1, a key cell-cell adhesion molecule.

Dr. Madri has also broken new scientific ground in his work in the understanding of the role of matrix metalloproteinase-2 in the pathogenesis of certain disorders. His team revealed a complex interrelationship between the integrins and matrix metalloproteinase-2 in the pathogenesis of experimental allergic encephalitis. Dr. Morrow calls this, "a potentially seminal observation with potentially enormous relevance to pathogenesis of multiple sclerosis and other autoimmune diseases."

Dr. Morrow also notes that Dr. Madri has ventured out of the laboratory to tackle a major clinical problem affecting premature infants, namely the intraventricular hemorrhage that frequently accompanies the birth of extremely premature babies. Working with Yale’s Dr. Laura Ment, a pediatric neurologist, Dr. Madri proved that the hemorrhaging results from abnormalities in the microvasculature of the newborn brain. They went on to demonstrate that administering indomethacin would accelerate microvascular maturation and ameliorate the sensitivity of the blood vessels in such patients.

Dr. Madri holds two patents and his work has led to two advanced clinical trials. He is on the editorial boards of five leading journals, including The American Journal of Pathology, and in 1999 he received a MERIT Award from NIH.

The Chugai Award requires outstanding mentorship as well as outstanding scholarship. Dr. Morrow writes that Dr. Madri "brings to the task of mentoring a rare mixture of New York humor, dedication, honesty, hard work, sensitivity to each individual’s needs and the uncanny ability to recognize a student’s strengths and deftly build upon them."

All of Dr. Madri’s 24 post-doctoral fellows have achieved prominence in clinical medicine, academia, or the biotechnology industry. Among them is Dr. Leonard Bell, co-founder, president and CEO of Alexion. Dr. Bell writes of his former teacher that Dr. Madri "fostered a laboratory environment which encouraged multi-disciplinary collaboration, rigorous and critical review, intellectual achievement and scientific advances." Dr. Bell says Dr. Madri has "scientific prowess, coupled with a unique intellectual generosity."

Another former student, Dr. Theresa T. Lu, a fellow at the University of California, San Francisco, writes that "Dr. Madri taught me how to ask the right questions, design experiments, and critically read papers. He was patient, supportive and enthusiastic..."

Both Dr. Bell and Dr. Lu report that they still seek out Dr. Madri for scientific and career counseling, years after they left his laboratory.

Joe Madri is a native New Yorker. He received B.S. and M.S. degrees in Biology from St. John's University in Queens, and went on to earn his M.D. and Ph.D. degrees at Indiana University. He went to Yale in 1975 as a resident, and has been there ever since.
The Chugai Award began only last year. It was created by the Chugai Pharmaceutical Company to honor a member of ASIP for a distinguished career in experimental and investigative pathology, demonstrated through excellence in mentoring, and sustained productivity in research. Dr. Madri will receive a cash award and a plaque, and will present the keynote lecture and chair the Chugai Symposium for Young Investigators at the 2001 ASIP meeting.