

Thieme Publishers, IUPAC, and the Editors of *Synthesis*, *Synlett*, *Synfacts*, and *Science of Synthesis* announce the recipient of the

# 2008 Thieme–IUPAC Prize in Synthetic Organic Chemistry



## F. Dean Toste



We are pleased to announce that the 2008 Thieme–IUPAC Prize has been awarded to F. Dean Toste of the University of California, Berkeley. As the 9th recipient of the Prize, the awardee joins a select group of scientists under the age of 40 years whose research has had a major impact on the field of synthetic organic chemistry. The Prize, which is awarded every two years and consists of €5000, will be presented to Dean Toste at his Award Lecture on June 24, 2008, at the ICOS-17 conference in Daejeon, Korea.

After completion of B.Sc. and M.Sc. degrees at the University of Toronto, where he carried out research under the guidance of an excellent teacher, Ian W. J. Still, Dean Toste joined Barry M. Trost at Stanford University in 1995, where he obtained his Ph.D. in 2000. His Ph.D. thesis received the prestigious ACS Nobel Laureate Signature Award. Following postdoctoral research with Robert H. Grubbs at the California Institute of Technology, Dean joined the department of chemistry at Berkeley in 2002, and was promoted to Associate Professor in 2006.

Dean Toste's research is primarily aimed toward the development of catalysts and catalytic reactions and methods for organic synthesis, and he has been responsible for a wide range of new discoveries, made at an extraordinary rate.

His achievements include the almost unprecedented use of a high oxidation state dioxorhenium complex to catalyze reductions of aldehydes, ketones, and imines, an approach that is contrary to conventional wisdom. Nevertheless, he went on to elucidate a novel mechanism for the process and developed a stereoselective version.

Dean Toste's research has also led to a series of outstanding contributions in the use of late transition metal complexes in low oxida-

tion states, most notably gold(I), as catalysts for advanced organic synthesis. The potential of gold catalysts has been overlooked for decades, and it is largely due to the excellent achievements of the Toste laboratory that this situation is now rapidly changing. Dean Toste's publications on gold-catalyzed cycloisomerization reactions and sigmatropic rearrangements, as well as his fine work on the intramolecular Schmidt reaction, to mention just a few of his contributions, bear witness to his outstanding creativity. A spectacular recent achievement, which holds considerable promise, is his insightful approach to stereoselective catalysis using chiral counterions to the cationic gold template.

These important methodological innovations are complemented by elegant applications to target-oriented synthesis as highlighted, for example, by his approach to the cytotoxic alkaloid (+)-lycopoladine.

Dean Toste's development of new methodologies is characterized by a rational approach rather than by random screening, and is supported by a deep commitment to understanding the underlying mechanisms of these extraordinary processes, which sets the stage for further development of this chemistry.

Dean Toste is already recognized as one of the leading organic chemists of his generation and has received many prestigious awards. His work promises to make a significant impact on synthetic organic chemistry and the companies that utilize it, such as those in the pharmaceutical industry.

We congratulate Dean Toste and look forward to hearing the latest exciting developments from his laboratory, an Account of which will be published in *Synlett*, at his Award Lecture in Daejeon, Korea.



F. Dean Toste

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# Thieme–IUPAC Prize in Synthetic Organic Chemistry



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