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Pacificchem 2010

**Announcing an upcoming symposium at Pacificchem 2010
in the Topic Area of Biological Chemistry.**

Advances in Solid-State NMR of Biological Molecules (#58)

Organized by: Akira Naito, Michele Auger, Ayyalusamy Ramamoorthy, Frances Separovic

Invited Speakers: Michele Auger (CA), Jerry Chan (TW), Timothy Cross (US), Gary Drobny (US), Toshimichi Fujiwara (JP), John Gehman (AU), Mei Hong (US), Yoshitaka Ishii (US), Yongae Kim (KOR), Vladimir Ladizhansky (CA), Gary Lorigan (US), Ann McDermott (US), Francesca Marassi (US), Isabelle Marcotte (CA), Nobuaki Matsumori (JP), Konstantin Momot (AU), Akira Naito (JP), Kaoru Nomura (JP), Eric Oldfield (US), Stanley Opella (US), Tatyana Polenova (US), William Price (AU), Ayyalusamy Ramamoorthy (US), Takeshi Sato (JP), Jacob Schaefer (US), Frances Separovic (AU), Simon Sharpe (CA), Steven Smith (US), Suzana Straus (CA), Kiyonori Takegoshi (JP), Satoru Tuzi (JP), Gianluigi Veglia (US), David Weliky (US), Katherine H. Wildman (US), Kurt Zilm (US)

Solid-state NMR is a powerful tool for elucidating structure-function relationships at atomic resolution in a variety of biological systems. As an approach of structural biology, recoupling methods in solid-state NMR spectroscopy have greatly progressed to determine interatomic distances of site specific and uniformly labeled biomolecules. This distance information together with chemical shift interactions are used as structural constraints for determining the 3D structure of solid biological macromolecules. Solid-state NMR can also provide molecular images based on orientational information in mechanically and magnetically ordered systems of biomolecules, such as membrane proteins and peptides and including antimicrobial peptides, fusion peptides, toxins and ion channels. Unique information about dynamics can be obtained in the solid-state or in membranes since local motions can be studied without the complexity of overall tumbling over a wide range of time scales, which are relevant to biological function. The following topics will be discussed in this symposium: (i) technical developments in resolution and sensitivity enhancements of solid-state NMR; (ii) high-resolution structure determination of biomolecules by solid-state NMR; (iii) advances in structural biology of membrane proteins and peptides; (iv) dynamics and biomolecular function by solid-state NMR; and (v) characterization of supramolecular complexes and fibril-forming proteins.

Abstract submission: January 1st – April 5th, 2010
All abstracts are submitted through the WEB link:

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