

REPORT ON THE CONFERENCE: Magnetic Resonance in a Cordubensis Perspective
VI: New developments in NMR.

This national conference was the first of its kind in Argentina, where scientists from different research fields that use or develop NMR and EPR met with the aim to share not only their scientific achievements but also the problematic of having magnetic resonance as the main research tool in our country. The conference had more than fifty attendees from different Universities and research centres with the special presence of Prof. H.W. Spiess in representation of ISMAR and Prof. Tito Bonagamba, from the University of Sao Carlos, Brazil, in representation of AUREMN.

This conference was organized by the Faculty of Mathematics, Astronomy and Physics (FaMAF) of the National University of Córdoba (UNC) with financial support from UNC, different governmental research agencies and ISMAR. There were twelve plenary lectures, nine short communications given by young researchers and doctoral students and two poster sessions. The book of abstract is attached together with a list of participants that wished to be considered for membership. The economic support provided by ISMAR was used exclusively to finance the attendance of twenty undergraduate and doctoral students from different parts of the country to the conference.

The main outcome of this meeting was the creation of an Argentinean NMR Society (Sociedad Argentina de Resonancia Magnética – SAREM) which will function starting from 2012. The first objective of this society is to organize a conference in a two-year basis. The city of Rosario was chosen for 2013 and will be chaired by Dr. Rodolfo Rasia from the Institute of Biology of Rosario.

My personal impression is that not only the talks were of high scientific level but also the after session discussions were very productive. In particular it is very encouraging to see that the new generation of Argentinean NMR experts will get to know each other from very early stages in their careers, this will be very positive for a fruitful integration of the science in our country. Finally I would like to remark that the ISMAR label was very useful, not only for raising funds, but also to attract people to the conference. I would like to thank the ISMAR council for their support once again.

Sincerely yours,

Rodolfo Acosta

**MAGNETIC RESONANCE
IN A CORDUBENSIS PERSPECTIVE VI:
NEW DEVELOPMENTS IN NMR**

SEPTEMBER 5th TO 7th, 2011

Alta Gracia, Córdoba, Argentina

EXTENDED ABSTRACTS BOOK

GENERAL INFORMATION

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ORGANIZING COMMITTEE

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ACKNOWLEDGMENTS



PROGRAM

MRCP VI: NEW DEVELOPMENTS IN NMR

SEPTEMBER 5th TO 7th, 2011

Alta Gracia, Córdoba, Argentina

Sunday, September 4th

21:00 – Reception for early arrivals

Monday, September 5th

10:00 – **Opening session** – Organizing Committee

10:15 – **Lecture** – *Invisible states in paramagnetic copper proteins.*

Alejandro Vila, Instituto de Biología de Rosario, Argentina

11:00 – **Coffee Break**

11:30 – **Lecture** – *NMR dipolar constants of motion in liquid crystals: a test of bed for spin relaxation and decoherence theories in correlated systems.*

Ricardo Zamar, Universidad Nacional de Córdoba, Argentina

12:15 – **Oral Communication I** – *HMBC key correlation in structural elucidation of natural compounds.* Manuela García, Facultad de Ciencias Químicas, UNC.

12:35 – **Oral Communication II** – *Determination of component fractions in heterogeneous samples by time domain NMR using differences in T_1 .*

Lucas Cerioni, SpinLock SRL, Argentina.

13:00 – **LUNCH**

15:00 – **ISMAR Presentation** – Hans Wolfgang Spiess, ISMAR President

15:15 – **Lecture** – *Spin label EPR, a useful tool in biophysical research.*

Ana María Gennaro, INTEC, Sante Fe, Argentina.

16:00 – **Lecture** – *On going from Basic Research to Industrial Applications: The SpinLock Case.* Daniel Pusiol, Spinlock SRL, Argentina

16:45 – **Coffee Break**

17:20 – Oral Communication III – *Solution structure and dynamics of cox's subunit II in its non-metallated form.* María Eugenia Zaballa, Instituto de Biología de Rosario, Argentina.

17:40 – Oral Communication IV – *Internal gradient mapping with Distant Dipolar Field contrast.* Emilia Silletta, Universidad Nacional de Córdoba.

18:00 – Oral Communication V – *Inhibition of the beta amyloid peptide fibrillation using small molecules.* Ariel Valiente, Instituto de Biología de Rosario, Argentina.

18:20-19:30 – Poster Session–

Tuesday, September 6th

09:00 – Lecture – *Magnetic Resonance studies of nanostructured functional systems.* Hans Wolfgang Spiess, Max Planck Institute for Polymer Research, Germany.

09:45 – Lecture – *Cordubensis developments in field-cycling NMR.* Esteban Anoardo, Universidad Nacional de Córdoba, Argentina.

10:30 – Coffee Break

11:00 – Lecture – *Protein folding and misfolding in neurodegeneration: an NMR view.* Claudio Fernandez, Instituto de Biología de Rosario, Argentina.

11:45 – Lecture – Patricia Levstein, Universidad Nacional de Córdoba, Argentina.

12:30 – LUNCH

15:00 – Lecture – *Applications of fMRI.* Gustavo Foa Torres, Instituto Oulton.

15:45 – Oral Communication VI – *Solution and solid state NMR characterization of synthetic imidazoles, polymeric materials and their metal complexes.* Karina Chattah, Universidad Nacional de Córdoba, Argentina.

16:05 – Coffee Break

17:00 – CITY TOUR / Argentinian NMR Organization Meeting –

21:00 – Conference Dinner –

Wednesday, September 7th

09:00 – Lecture – *New advances in low and zero field NMR.* Tito J. Bonagamba, Instituto de Física de São Carlos, Universidade de São Paulo, Brazil.

09:45 – Lecture – *NMR petrophysical applications.* Máximo Ramia - MR Technologies SA, Córdoba, Argentina.

10:30 – Coffee Break

11:00 – Lecture – *Fast screening and fold elucidation of proteins.* Rodolfo Rasia, Instituto de Biología de Rosario, Argentina.

11:45 – Oral Communication VII– *NMR-like experiments in superconducting quantum systems.* Héctor Segnorile, Universidad Nacional de Córdoba, Argentina.

12:05 – Oral Communication VIII– *RNA interactions and dynamics of the miRNA-processing associated protein HYL1.* Marcos Morgada, Instituto de Biología de Rosario, Argentina.

11:25 – Oral Communication IX– *Understanding the complexation of $AlCl_3$ with beta-cyclodextrin. A ^{27}Al NMR study.* Manuel Velasco, INFIQC, Universidad Nacional de Córdoba.

12:45 – Closing Session

13:00 – LUNCH