

# Jon Lapham, PhD

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## Education

YALE UNIVERSITY, New Haven, CT, USA

PhD: Chemistry, May 1998

MS: Chemistry, May 1993

FLORIDA STATE UNIVERSITY, Tallahassee, FL, USA

BS: Chemistry, May 1991

## Professional Experience

CONSULTECH LTDA, Rio de Janeiro, Brazil

Partner in technical scientific consulting company. 2004 - present

EXTRACTA MOLÉCULAS NATURAIS SA, Rio de Janeiro, Brazil

Information Technologies Manager, July 1999 - 2003

UNIVERSIDADE FEDERAL DO RIO DE JANEIRO, Dept Biophysics, Rio de Janeiro, Brazil

Postdoctoral assistant research, January 1999 – March 2000.

Advisor: Professor Jerson Lima de Silva

Research area: Theoretical simulations of NMR relaxation phenomena

YALE UNIVERSITY, New Haven, CT, USA

Graduate assistant research, September 1991 – May 1998

Advisor: Professor Donald M. Crothers

Research area: Structural and dynamic studies of nucleic acids by nuclear magnetic relaxation.

Teaching Assistant, Advanced Physical Chemistry, September 1994 – May 1995

Advisor: Professor Peter Moore

FLORIDA STATE UNIVERSITY, Tallahassee, FL, USA

Undergraduate assistant research, 1990 – 1991

Advisor: Prof. William Cooper

Research Area: Environmental chemistry, specifically, analysis of solid state NMR results from river sediment samples.

## Publications

BARTOSCHEK S, BUURMAN G, GEIERSTANGER BH, LAPHAM J, AND GRIESINGER C. 2003.

Measurement and ab initio calculation of CSA/dipole-dipole cross-correlated relaxation provide insight into the mechanism of a H<sub>2</sub> forming dehydrogenase. Article Submitted.

ROYCHOUDHURY M, SITLANI A, LAPHAM J, CROTHERS DM. 2000. Global structure and mechanical properties of a 10-bp nucleosome positioning motif. *Proceedings of the National Academy of Sciences: USA* **97**:13608 13.

LAPHAM J, CROTHERS DM. 2000. Site specific cleavage of transcript RNA. *Methods in Enzymology*. **317**:132 139.

DHAVAN G., LAPHAM J, CROTHERS, DM. 1999. Imino proton spectroscopy and exchange kinetics of the Integration Host Factor DNA binding site. *Journal of Molecular Biology*. 288:659 671.

LAPHAM J. 1998. 1) NMR studies of the spliced leader RNA from *Crithidia fasciculata* and *Leptomonas collosoma*. 2) Hydrodynamic properties of nucleic acids by NMR. Yale University. Ph.D. Thesis.

LAPHAM J, RIFE J, MOORE PB, CROTHERS DM. 1997. Measurement of diffusion constants for nucleic acids by NMR. *Journal Biomolecular NMR* **10**:255 262.

LAPHAM J, YU Y T, SHU M D, STEITZ JA, CROTHERS DM. 1997. The position of site directed cleavage of RNA using RNase H and 2' O methyl oligonucleotides is dependent on the enzyme source. *RNA* **3**:950 951.

XU J, LAPHAM J, CROTHERS DM. 1996. Determining RNA Solution Structure by Segmental Isotopic Labeling and NMR: Applications to *Caenorhabditis elegans* Spliced Leader RNA *1*. *Proceedings of the National Academy of Sciences: USA* **93**:44 48.

LAPHAM J, CROTHERS DM. 1996. RNase H Cleavage for Processing of in vitro Transcribed RNA for NMR Studies and RNA Ligation. *RNA* **2**:289 296.

## **Public Presentations**

"NUCLEAR SPIN RELAXATION AND THE MOLECULAR DIFFUSION TENSOR", poster presentation at the Experimental NMR Conference (ENC), Orlando, Florida, 1999.

"NUCLEAR SPIN RELAXATION AND THE MOLECULAR DIFFUSION TENSOR", oral presentation at Workshop on Macromolecular Structure, Folding and Dynamics by NMR, Rio de Janeiro, Brasil, 1999.

"AN NMR DERIVED STRUCTURAL MODEL OF THE 13NT FORM 1 SPLICED LEADER RNA HAIRPIN FROM LEPTOMONAS COLLOSOMA", poster presentation at the ENC, Asilomar, California, 1996.

"STRUCTURAL STUDIES OF SL RNA BY NMR", poster presentation at the Stable Isotopes in Research Conference, Sante Fe, New Mexico, 1993.