Jaime Lagúnez­Otero Ph.D.

Patents in process of Registration

Oligonucleotide for HIV RT inhibition

Oligonucleotide for therapeutics in Breast Cancer

Work Experience

2014­2015 Consultant in Systems Biology for INSP (National Institutes of

Health of Mexico) and CONACYT (National Science and Technology

Council).

2014­2015 Member of the Steering Committee of The National Prevention

Coalition (USA

1992­2015 Full time researcher principal investigator at The National

University of Mexico.

2010 Mexico City Congress generates bill to promote personal research:

http://ireport.cnn.com/docs/DOC­576944

2006 President of the Iberoamerican Cryonics Organization

2004 Referee for CONACYT scientific projects in Mexico.

2001­2003 Director for PostDoctoral researcher

1999 Referee for contributions to the 1998 Pacific Symposium on Biocomputing.,

1996 Referee for COLCIENCIAS science and technology agency of Colombia.

1996­2002 Member of the Commitee for Supercomputing of the National

University of Mexico

1995­2002 Coordinator of project (Genia) for the design of system that can

analyze protein and genetic networks.

1993­1996 Mentor of PhD students, M.Sc and B.Sc. students. Member of three

PhD Tutorial Comitees

From 1992 Full Time Researcher of the UNAM (National University of Mexico).

Education

1988­1992 Ph.D.​Weizmann Institute of Science, Rehovot, Israel.

Dissertation: The mRNA Framing Pattern Refined through the

Analysis of Nucleotide Distributions and Signal Component

Compensations

with Dr. Edward N. Trifonov

1984­1986 M.Sc​.in Life Sciences, Weizmann Institute of Science

Thesis: Ribosomal Structure Derived from Sequence Analysis.

with Dr. Edward N. Trifonov

1979­1984 B.Sc​.: Basic Biomedical Research, UNAM, Mexico.

Thesis: Computational Programs Applied to Biological Sequences

with Dr. José Negrete Martínez

Recognitions

Assignment of Fellowship from the Rotary Club of Morelos (1987)

Assignment of SEP/IPN­CONACyT fellowship (1984)

Recipient of the JFK y Feinberg Foundation Fellowship from the Weizmann

Institute of Science, Israel (1987­1992)

Recipient of Fellowship from the USA­Mexico Binational Foundation through the

National Academy of Sciences of Mexico for a scientific visit at Rockefeller

University in NYC. (July, 1995)

Included in: NORTH AMERICAN SCIENTISTS, AN INTRODUCTION, Marquis

Who's in Science and Engineering, Marquis' Who's Who in the World

Talks:

Universidad Autonoma del Estado de Morelos, Mexico, 2004.

Institute of Materials Research, UNAM, México, 2003.

T. Blundell Laboratory, Cambridge, UK, January, 1997.

Rockfeller University, Laboratory of F. Nottembaum, NY, 1995.

Posgraduate Department of Faculty of Chemistry, UNAM, 1995.

Instituto de Investigaciones Biomédicas, UNAM, 1995

Participation in Meetings

Ipcat 2001, Session Chairman WSEAS, Jaimaica 2000, Satphys 2001,

International Conference on Complex Systems Boston, Mass. September,.

1997., 1st. UICC (Union Internationale Contre le Cancer) meeting on Cancer

management, Vienna, Austria, 1997. International Meeting on Intelligent Systems

for Molecular Biology, Halkidiki, Greece, 1997. The Fifth International Nature

Genetics conference on Functional Genomics: From Genes to Drugs

Washington, D.C. 1997. International Meeting on Bioinformatics, Jerusalem,

Israel, November, 1996. International Meeting on Bioinformatics, Baltimore, Md.

USA, June, 1996. International Meeting on Bioinformatics, Sn. Francisco, Cal.,

USA, June, 1995. International Meeting on Oligonucleotide Therapies, Sn Diego,

Cal. USA June, 1995. International Congress on Biochemistry and Molecular

Biology, New Delhi, India, September, 1994. First International Conference on

Intelligent Systems for Molecular Biology Washington, D.C., July, 1993. Sante Fe

Conference on Computational Biology, Santa Fe, N.M, November, 1992.

Computational Methods in Genome Research, Heidelberg, Germany, July, 1992.

Receptor of Research Grants

Computer applications in genetic analysis:

DGAPA, 1994, Conacyt 1995, DGAPA, 1996­1998, 2000­2002

Organizations

Member or the National System of Researchers (SNI) of Mexico

NECSI

Publications

Chapters in Books

1​ ​Compensation effects in the framing code​, J. Lagúnez Otero & E.

Trifonov, En "Modeling and Computer Methods in Molecular Biology and

Genetics", Ed. V. Ratner, Nova Science Publishers, New York. 1992.

2​ ​Signal Transduction Analysis Using with Boolean Paradigms ​M.

Armas, O. Armas, M. Cardenas, J. Vasconcelos & J. Lagúnez­Otero in

Mathematics and Computers in Modern Science, N. Mastorakis, ed. World

Scientific Engineering Society Press, ISBN:960­8052­23, pp 269­174.,

2000.

3​ ​Modeling intracellular signaling networks using behaviour­based

systems and blackboard architecture, ​P.P. González, C. Gershenson,

M. Cárdenas, J. Lagúnez­Otero , in Mathematics and Computers in

Modern Science, N. Mastorakis, ed. World Scientific Engineering Society

Press, ISBN:960­8052­23, p 219­22., 2000.

Articles

Integration of Computational Techniques for the Modelling of Signal

Transduction ​Pedro Pablo González, Maura Cárdenas, Carlos Gershenson,

Jaime Lagúnez­Otero en Advances in Systems Science: Measurement &

Control, ISBN:960­8052­39, p 400­410, 2001. mRNA infrastructure

complementary to the proofreading site of the ribosome​, J. Lagúnez Otero &

E. Trifonov, (J. of Biomol. Struct. and Dyn. 10​, 455­464 1992).

A plasmidic Citrate Synthase increases symbiotic fitness in ​Rhizobium

tropici​, M.A. Pardo, J. Lagúnez­Otero & E. Martínez­Romero (J. Mol. Microb.,

11,2 315­321, 1993).

Complementarity of mRNA to the 530 loop of SS rRNA ­ implications for

Initiation, ​J. Lagúnez­Otero (Trends in Biochemical Sciences. 18,11:406­8,

1993 (Factor de impacto 14.3).

The Ribosome as an Exon Detector​, Mendoza, L. Lagúnez­Otero,

(Biosystems, 38, 45­49, 1996).

Nutritional Value of Edible Insects from Oaxaca, Mexico Julieta Ramos, Pino,

M., E., Ladrón de Guevara, O, Lagúnez ­Otero, J. ​(J of Food and Nutrition, 10​,

142­157, 1997)

Taxonomy of 5S Ribosomal RNA by the Linguistic Technique: Probing

Mitochondrial and Mammalian Sequences, ​Cardoso Guimarães, R., Trifonov,

E. N. & Lagunez­Otero, J. ​(J. Mol. Evol. 45 (3): 271­277, 1997).

Ab Initio Study of the Acetone Performic Acid Baeyer & Villiger Reaction

Mechanism Cardenas, R., Cetina, R., Lagúnez­Otero, J., and Reyes, L.(JPC of

the ACS, 101​, 192­200, 1997).

Ab Initio ​Study of the Reaction Mechanism of Water Dissociation into the

Ionic Species OH­ and H3O+, ​R. Cárdenas\*, J. Lagúnez­Otero and A. Flores\*\*,

J., (Journal of Quantum Chemistry, 68, 253­259, 1997).

The Role Played by the 530 Ribosomal Site in Translocation ­ Interaction

with the termination region of mRNA, ​Mendoza, L., Mondragón, M., and

Lagúnez­Otero, J (Biosystems 46, 293­298, 1998).

Semiempirical Studies on the Transition Structure of the Baeyer & Villiger

Rarrangement, the reaction of acetone with alkyl and acyl peracids. ​Renán

Cárdenas, Lino Reyes, Jaime Lagúnez­Otero & Raúl Cetina. J. Mol. Structure

497: 211­225, 2000.

Specialized biology from tandem ­turns. ​Jaime Lagúnez­Otero,

1 Andrea

Diaz­Villaseñor,

1 and V. Renugopalakrishnan,

1, ​Arch Med Res May­Jun; 33

(3):245­249 ​2002

The application of abstract topology to RAS­related signal transduction

pathways Maura Cárdenas­García

a,1

, Jaime Lagunez Otero

a,2 and Nikolai A.

Korneev

b,3

In Silico Biology 2, 40, 2002.

Cellulat: an agent based intracellular signalling model, ​Pedro Pablo

González, Maura Cárdenas, David Camacho, Armando Franyuti, Octavio Rosas

and Jaime Lagúnez­Otero Biosystems,​.68, ​171­185, 2003.

Accepted for Publication: An Evolving Neural Network for the Interpretation

of Gene \_Expression Patterns , Maria del Carmen Marquez, Pedro Pablo

Gonzalez, & Jaime Lagunez­Otero, Omics, 2005.

Proceedings

1. Use of subgroups for the Analysis of Protein

Interations in the Cell​, M. Cárdenas­García, N.,

Kornieev, and J. Lagúnez Otero, A Topology of

Protein Interaction Networks, (ISMB 2000,

Proceedings of the Eighth International Conference

on Intelligent Systems for Molecular Biology, Altman

R. et al. Editores. AAAI Press, p86­92) 2000.

2. Cellulat, ​Jaime Lagunez­Otero, Pedro Pablo

González, Maura Cárdenas, Octavio Roas, &

Armando Franyuti, in Artificial Life VIII, Standish,

Abass, Bedau (eds) (MIT Press) 2002. pp97­100.

Reports

1 Towards Phenotypic Engineering, J. Lagúnez­Otero, M. Strauch,

M. Armas Alemán (Abstract) (Folding and Design, Vol. 1, Sup, S4­S5,

1996)

2.​ ​The Cell as an Expert System, J. Lagúnez­Otero, ​Dagstuhl

Seminar Report: 215, p.60. ISSN 0940­1121, 1998.