

MARTIN MICHAEL HANCZYC Ph.D.

Home Address:

23 Rockingham St.
Cambridge, MA 02138
USA
(617) 669-0743

e-mail:

hanczyc@molbio.mgh.harvard.edu

Laboratory Address:

Massachusetts General Hospital
Wellman-9
50 Blossom St
Department of Molecular Biology
Boston, MA 02114
USA
Phone: (617) 726-5980
Fax: (617) 726-6893

CURRENT POSITION

Postdoctoral Fellow

September 1999 - present

In the laboratory of Dr. Jack W. Szostak, Department of Molecular Biology, Harvard Medical School.

EDUCATION

Yale University, New Haven, Connecticut.

August 1992 – May 1999

Ph.D. in Genetics.

Dissertation : *Exploration of Diversity, Adaptation and Complexity in Experimental Systems of Evolution In Vitro*

Dr. Robert L. Dorit, Mentor.

Pennsylvania State University, State College, PA.

August 1988 - May 1992

BS. in Biology May 1992. Concentration in Genetics and Development.
Graduated with honors. GPA 3.75.

PUBLICATIONS

Hanczyc MM and Szostak JW. 2004 Replicating vesicles as models of primitive cell growth and division. *Curr Opin Chem Biol* Vol 8/6 (in press).

Hanczyc MM, Fujikawa SM, and Szostak JW. 2003 Experimental models of primitive cellular compartments: encapsulation, growth and division. *Science* **302**: 618-622.

Hanczyc MM and Dorit RL. 2000 Replicability and recurrence in the experimental evolution of a group I ribozyme.. *Molecular Biology and Evolution*. **17(7)**: 1050-1060.

Hanczyc MM and Dorit RL. 1998 Experimental evolution of complexity: in vitro emergence of intermolecular ribozyme interactions. *RNA* **4**: 268-275.

Leicht BG, Muse SV, **Hanczyc M**, and Clark AG. January 1995 Constraints on intron evolution in the gene encoding the myosin alkali light chain in *Drosophila*. *Genetics* **139**: 299-308.

FUNDING

- National Institutes of Health, National Research Service Award** *Dec. 2000- present*
Principal Investigator: Martin M. Hanczyc, Department of Molecular Biology, Harvard University
Project Title: In Vitro Evolution of Multiple Turnover Catalysts
- Howard Hughes Medical Institute Postdoctoral Fellowship** *Sept. 1999 – Dec. 2000*
Program Director: Jack W. Szostak, Department of Molecular Biology, Harvard University.
- National Science Foundation Dissertation Improvement Grant** *May 1996 – April 1999*
Program Director: Robert Dorit, Yale University Award # 9623303.
- Medical Informatics Training Grant** *Sept. 1992 – August 1995*
Program Director: Perry Miller, Yale University. 5 T15 LM07056

EXPERIENCE

- Lecturer**
- Astrobiology course at Rice University (ASTR 403)** *Spring 2004*
Invited to give two lectures on the origin of life.
- Ecology and evolution laboratory. Yale University (BIO243LB)** *Spring 1996,1997,1998*
An undergraduate laboratory course exploring the evolution and ecology of antibiotic resistance in human bacteria, the origin and evolution of HIV, the evolution of mammalian and avian morphology, and the utility of human DNA forensic typing.
- Human genetics seminar. Yale University. (HG500A)** *Spring 1995*
A small seminar designed to introduce first year medical school students to a broad range of human genetic topics from disease inheritance to molecular techniques to ethical issues.
- Assistant Editor** *June - July 1994*
Sinauer Associates, Inc. Publishers, Sunderland, Massachusetts.
Reviewed and edited the fourth edition biological text, LIFE - The Science Of Biology by Purves, Orians, and Heller.
- Undergraduate Research Assistant** *May 1990 - August 1992*
Pennsylvania State University, State College, PA
Dr. Andrew G. Clark, Principal Investigator.
Undergraduate Research: The evolution of the myosin alkali light chain intron in *Drosophila melanogaster*.

HONORS

1998 - 1999 G. Evelyn Hutchinson Prize, Yale Institute for Biospheric Studies

Plenary Session - Outstanding Young Investigators

Presented "Evolving complexity in an *in vitro* ribozyme system" at the 9th International Congress on Isozymes, Genes and Gene Families. April 14-19, 1997.

TALKS and POSTER PRESENTATIONS

Invited speaker:

"Life as a Complex System: Constructive and Dynamic Approach to Cell and Developmental Biology". Martin Hanczyc. University of Tokyo, Japan. March 5-6, 2005

Invited speaker:

"Replicating vesicles as models of primitive cell growth and division"
Martin Hanczyc and Jack W. Szostak
COST D27 WORKSHOP Prebiotic Chemistry and Early Evolution, Creta. 2004

Invited speaker:

"Replicating vesicles as models of primitive cell growth and division"
Martin Hanczyc and Jack W. Szostak
228th ACS National Meeting, Philadelphia. 2004

Invited speaker:

"Formation and replication of protocellular compartments"
Martin Hanczyc, Shelly Fujikawa, Jack W. Szostak
Bridging Nonliving and living matter workshop, Los Alamos National Labs and Santa Fe Institute, 2003

"Mineral-Catalyzed Formation of Biological Compartments"

Martin Hanczyc, Shelly Fujikawa, Jack W. Szostak
Gordon Conference: Origin of Life, Bates College 2003

"Mineral-Catalyzed Formation of Biological Compartments"

Martin Hanczyc, Shelly Fujikawa, Jack W. Szostak
Bioastronomy , Hamilton Island 2002

"Evolving complexity in an *in vitro* ribozyme system"

Martin Hanczyc, Robert Dorit
9th International Congress on Isozymes, Genes and Gene Families , San Antonio 1997.

"Evolving complexity in an *in vitro* ribozyme system"

Martin Hanczyc, Robert Dorit
NEMEB, Yale University 1997

"Complexity and Evolution in vitro"

Martin Hanczyc, Robert Dorit
Society for the Study of Evolution Annual Meeting, McGill University 1995

PRESS

Discover Magazine – interviewed and photographed for an article on the origin of life. 2004

Chicago Tribune - interviewed by Ronald Kotulak and photographed for an article describing the scientific approaches to the non-living to living matter transition. 2004

BBC radio – interviewed by Geoff Watts for the ‘Leading Edge’ science program regarding my recent findings published in Science. 2003

Nova – interviewed and filmed for a public television program on the origin of life. 2002

REFERENCES

Dr. Jack W. Szostak
Investigator, Howard Hughes Medical Institute
Professor of Genetics, Harvard Medical School
Dept. of Molecular Biology,
Massachusetts General Hospital
Boston, MA 02114
USA
Phone: 617-726-5981
FAX: 617-726-6893
Email: szostak@molbio.mgh.harvard.edu

Dr. Robert L. Dorit
Associate Professor
Department of Biological Sciences
Sabin-Reed Hall
Smith College
Northampton, MA 01063
USA
Phone: (413) 585-3638
FAX: (413) 585-3786
Email: rdorit@email.smith.edu

Prof. Dr. Svante Pääbo
Director, Department of Genetics
Max Planck Institute for Evolutionary Anthropology
Deutscher Platz 6 04103 Leipzig
Germany
phone: +49 341 3550 501
phone secretary: +49 341 3550 500
FAX: +49 341 3550 555
Email: paabo@eva.mpg.de