

Randall V. Collura

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Education:

Harvard University, Ph.D. in Biological Anthropology, June 2006
West Virginia University, MS in Molecular Biology, May 1991
Excelsior College (NY), BS in Biology, September 1984

Current Position:

University at Albany - Visiting Scholar with Dr. Caro-Beth Stewart

Research Experience:

Research at Harvard University:

Dissertation title: "Molecular Evolution of Genes Related to Primate Encephalization and Energetics", advisor Dr. Maryellen Ruvolo.

- 1) A comparison of protein structural (genomic data) and expression (microarray data) differences between humans and chimpanzees.
- 2) The evolution of brain-size related genes in the primates.
- 3) A study of the evolution of mitochondrial DNA in the primates. One partial mitochondrial genome (*Aotus trivirgatus*) was sequenced for this project.
- 4) Primate Y-chromosome phylogenetic analysis (ZFY gene).

Postdoctoral research at Harvard University:

- 1) Research on mitochondrial evolution
- 2) Continued research on genomics of human brain evolution

Research at The University at Albany:

Primate mitochondrial phylogenetic analysis (cytochrome *b* gene).

Postdoctoral research at The University at Albany:

- 1) Grant preparation
- 2) Analysis of AIDs-related genes in humans and non-human primates.

Research project at West Virginia University:

Thesis title: "Spatial pattern of expression of exogenous Cyl actin fusion gene constructs in the sea urchin embryo", advisor Dr. Karen Katula.

Post-Doctoral Research Experience:

7/2010 – Present - Visiting Scholar with Dr. Caro-Beth Stewart at UAlbany
12/2009 – 6/2010 - Postdoctoral Fellowship with Dr. Haydeh Payami
9/2008 – 12/2009 - Visiting Scholar with Dr. Caro-Beth Stewart at UAlbany
6/2006 – 6/2008 - Postdoctoral Fellowship with Dr. Maryellen Ruvolo at Harvard

Teaching Experience:

Rensselaer Polytechnic Institute, Fall 2013, Fall 2014 - Adjunct professor:
Bioinformatics I – Sequence Analysis

Hartwick College, Spring 2012 – Adjunct lecturer:
Introduction to Biological Anthropology

NERFI – Northeast Regional Forensics Institute 2007-2010:
DNA Academy fundamentals lecturer – students included MA & NY State
Police forensics recruits.

Albany College of Pharmacy 2008:
Adjunct evaluator for Seminar II

Harvard University 1999-2008 - Teaching Fellow, tutorial sections for large core classes:
Science B59 (Genes and Human Diversity), Science B29 (Evolution of Human
Nature) and Quantitative Reasoning 34, (Counting People: Demography and
Human Affairs). Anthropology 97y (Sophomore Tutorial in Biological
Anthropology) – a small class for students entering the major.

Related Employment/Research Experience:

Harvard University - laboratory of Dr. Maryellen Ruvolo.

Ph.D. Graduate student/Lab manager, August 1997-June 2006.
Research/responsibilities included growing and maintaining primate cell lines,
extracting DNA and mRNA from cells and tissues, PCR and sequencing, DNA
sequence analyses using phylogenetic and statistical software, writing and
organizing material for research papers, general lab maintenance and oversight
including ordering supplies and equipment, and computer support including
maintaining and upgrading software.

The University at Albany (SUNY) - laboratory of Dr. Caro-Beth Stewart.

Lab manager 1991-1997. Responsibilities included ordering supplies and
equipment, maintaining stock solutions, keeping bacterial and yeast cultures,
general maintenance, and computer support. Operated a DNA sequencing
facility for the biology department including setting up runs, distributing
sequence data and maintaining the equipment. Assisted in setting policies and
coordinating the use of the machine by other members of the department.

Awards and Fellowships:

Cora DuBois Fellowship, 2005
Jacob K Javits Fellowship US DOE, 2000-2004, \$15,000/year
Sigma Xi, Harvard Chapter Scientific Recognition Award, 2000
Outstanding Graduate Teaching Assistant Award, 1990

Publications: (Google Scholar citations as of Nov 11th 2014)

- Hamza TH, Zabetian CP, Tenesa A, Laederach A, Montimurro J, Yearout D, Kay DM, Doheny KF, Paschall J, Pugh E, Kusel VI, **Collura R**, Roberts J, Griffith A, Samii A, Scott WK, Nutt J, Factor SA, Payami H. (2010)
[Common genetic variation in the HLA region is associated with late-onset sporadic Parkinson's disease.](#) *Nature Genetics*, 42(9): 781-785. (Cited 262 times)
- Karanth KP, Singh L, **Collura RV**, Stewart CB. (2008)
[Molecular phylogeny and biogeography of langurs and leaf monkeys of South Asia.](#) *Molecular Phylogenetics and Evolution* 46(2): 683-694. (Cited 38 times)
- Sun T, **Collura RV**, Ruvolo M, Walsh CA. (2006)
[Genomic and Evolutionary Analyses of Asymmetrically Expressed Genes in Human Fetal Left and Right Cerebral Cortex.](#) *Cerebral Cortex* Jul;16(Suppl 1):i18-i25. (Cited 21 times)
- Collura RV** (2004) Book chapter "What Is Our Natural Diet And Should We Really Care?" in [Food for Thought: The Debate over Eating Meat](#), Prometheus Books, Edited by Steve F. Sapontzis. (Cited 14 times)
- Ferland RJ, Eyaid W, **Collura RV**, Tully LD, Hill RS, Al-Nouri D, Al-Rumayyan A, Topcu M, Gascon G, Bodell A, Shugart YY, Ruvolo M, Walsh CA. (2004)
[Abnormal cerebellar development and axonal decussation due to mutations in AHI1 in Joubert syndrome.](#) *Nature Genetics* 36(9): 1008-1013. (Cited 262 times)
- Kouprina N, Pavlicek A, Mochida GH, Solomon G, Gersch W, Yoon YH, **Collura R**, Ruvolo M, Barrett JC, Woods CG, Walsh CA, Jurka J, Larionov V. (2004)
[Accelerated Evolution of the ASPM Gene Controlling Brain Size Begins Prior to Human Brain Expansion.](#) *PLoS Biology* 2(5): 653-663. (Cited 144 times)
- Collura, RV**, Auerbach, MR, Stewart, CB. (1996)
[A quick, direct method that can differentiate expressed mitochondrial genes from their nuclear pseudogenes.](#) *Current Biology* 6(10): 1337-1339. (Cited 48 times)
- Gonser, RA, **Collura, RV**. (1996)
[Waste not, want not: Toe-clips as a source of DNA.](#) *Journal of Herpetology* 30(3): 445-447. (Cited 19 times)
- Collura, RV**, Stewart, CB. (1995)
[Insertions and duplications of mitochondrial DNA in the nuclear genomes of Old World monkeys and hominoids.](#) *Nature* 378: 485-489. (Cited 193 times)
- Collura, R**, Katula, KS. (1992)
[Spatial pattern of expression of CyI actin- \$\beta\$ -galactosidase fusion genes injected into sea urchin eggs.](#) *Development Growth & Differentiation* 34(6), 635-647. (Cited 7 times)