Randall V. Collura

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Delmar NY 12054

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 Positions:

Hartwick College – Adjunct lecturer, Introduction to Biological Anthropology
University at Albany - Visiting Scholar with Dr. Caro-Beth Stewart

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

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:

Hartwick College 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.

West Virginia University 1988-1990:
Tutorial/lab sections for large introductory biology classes for biology majors.

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 CyI actin fusion gene constructs in the sea urchin embryo", advisor Dr. Karen Katula.

Related Employment/Research Experience:

Harvard University - laboratory of Dr. Maryellen Ruvolo.

Ph.D. Graduate student/research assistant 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 phylogenic 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.

Publications: (Google Scholar citations as of June 12th 2011)

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 29 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 11 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 14 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 5 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 163 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 88 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 41 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 7 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 144 times)

Collura, R, Katula, KS. (1992)
Spatial pattern of expression of CyI actin- ß -galactosidase fusion genes injected into sea urchin eggs. *Development Growth & Differentiation* 34(6), 635-647. (Cited 6 times)

In Preparation:

Bandla, S, **Collura, RV**, de Koning, AJP, Gonder, MK, Stewart, CB.
Host adaptation to SIV: Gain and loss of glycosylation sites in protein receptors.