**CURRICULUM VITAE**

## Jonatha M. Gott

### PROFESSIONAL ADDRESS

Center for RNA Molecular Biology
School of Medicine, 10900 Euclid Ave.
Case Western Reserve University
Cleveland, Ohio 44106-4960
Phone: 216-368-3930
FAX: 216-368-2010
e-mail: jmg13@case.edu
http://www.rnaresearch.org/gott.htm

### EDUCATION

Ph.D. Molecular Biology 1987 State University of New York at Albany
Dr. David Shub, mentor

M.S. Biochemistry 1981 Colorado State University
Dr. Thomas Sneider, mentor

B.S. Nutrition and Food Science 1977 State University College of N. Y. at Plattsburgh

### ACADEMIC APPOINTMENTS

Associate Professor
Center for RNA Molecular Biology — July 2001-present
Department of Molecular Biology and Microbiology — July 1999-present
Case Western Reserve University

Assistant Professor — Fall 1991-June 1999
Department of Molecular Biology and Microbiology
Center for RNA Molecular Biology
Case Western Reserve University

Postdoctoral Fellow with Dr. Olke Uhlenbeck — 1987-1991
Department of Chemistry and Biochemistry
University of Colorado, Boulder

### AREAS OF RESEARCH INTEREST

1.) RNA editing
2.) Control of gene expression
3.) RNA synthesis and processing

## TEACHING/COURSE PARTICIPATION

CLBY/MBIO519 Molecular Biology of RNA, Spring 2009 (course organizer)
Block 2 Medical School teaching Molecular Biology and Genetics, Fall 2008
CLBY/MBIO59 Structure and Function of RNA, Fall 2008
CLBY/MBIO519 Molecular Biology of RNA, Spring 2008 (course organizer)
Block 2 Medical School teaching Molecular Biology and Genetics, Fall 2007
CLBY/MBIO59 Structure and Function of RNA, Fall 2007
CLBY/MBIO519 Molecular Biology of RNA, Spring 2007 (course organizer)
Block 2 Medical School teaching Molecular Biology and Genetics, Fall 2006
CLBY/MBIO519 Molecular Biology of RNA, Spring 2006 (course organizer)
CLBY/MBIO519 Molecular Biology of RNA, Spring 2005
CBIO455 Correlated Curriculum in Cell and Molecular Biology, Fall 2004
CLBY/MBIO519 Molecular Biology of RNA, Spring 2004
CBIO455 Correlated Curriculum in Cell and Molecular Biology, Fall 2003
CLBY/MBIO519 Molecular Biology of RNA, Spring 2003
CBIO456 Correlated Curriculum in Cell and Molecular Biology minicourse, 2000 - 2002
CBIO455 Correlated Curriculum in Cell and Molecular Biology, 1999 - 2001
Phase I Medical School CDB Section, Molecular Biology, Fall 1996- 98
Structure and Function of RNA, Spring 1997
Correlated Curriculum in Cell and Molecular Biology, 1992- 95
Structure and Function of RNA, Fall 1994
Post-transcriptional RNA Processing, Fall 1992
Health Careers Enhancement Program for Minorities, Summer 1993

## PUBLICATIONS

### Solicited books

Gott, J.M., editor (2007) *Methods in Enzymology: RNA Editing, volume 424.* Elsevier Press.

Gott, J.M., editor (2007) *Methods in Enzymology: RNA Modification, volume 425.* Elsevier Press.

Gott, J.M., editor (2004) *RNA Interference, Editing, and Modification: Methods and Protocols.* Humana Press, Totowa, NJ.

### Solicited reviews and book chapters

Byrne, EB, Visomirski-Robic, LM, Cheng, YW, Rhee, AC, and Gott, JM (2007) RNA editing in Physarum mitochondria: assays and biochemical approaches. In *Methods in Enzymology: RNA Editing and Modification.* Elsevier Press, pp. 143-172.

Gott, JM and Rhee, AC (2007) Insertion/deletion editing in *Physarum polycephalum*. In *RNA Editing (Nucleic Acids and Molecular Biology Series),* Springer, pp. 85-104.

Gott, J. M. (January 2006) RNA Editing and Human Disorders. In: *ENCYCLOPEDIA OF LIFE SCIENCES*. John Wiley & Sons, Ltd: Chichester
http://www.els.net/ [doi:10.1038/npg.els.0005494]

Gott, J.M. (2003) Two distinct roles for terminal uridylyl transferases in RNA editing. *Proc Natl Acad Sci USA 100*, 10583-10584.

Gott, J.M. (2003) Expanding genome capacity via RNA editing. *Comptes Rendus Biologies 326*, 901-908.

Gott, J.M. (2003) RNA editing and human disorders. In *Encyclopedia of the Human Genome*, Nature Publishing Group, London.

Gott, J.M. and Nilsen, T.W. (2002) RNA processing in parasitic organisms: *Trans*-splicing and RNA editing. In *Molecular and Biochemical Parasitology*, (ed. T.W. Nilsen) Academic Press, pp. 29-45.

Gott, J.M. (2001) RNA editing in *Physarum* polycephalum. In *RNA Editing: Frontiers in Molecular Biology*, pp. 20-37, (ed. B.L. Bass) Oxford University Press, Oxford.

Gott, J.M. and Emeson, R.B. (2000) Functions and Mechanisms of RNA editing. In *Annual Review of Genetics 34*, 499-531.

Gott, J.M. and Visomirski-Robic, L.M. (1998) RNA editing in *Physarum* mitochondria. In *Modification and Editing of RNA*, pp. 395-411, (eds. H. Grosjean and R. Benne), ASM Press, Washington, D.C..

Smith, H.C, Gott, J.M., and Hanson, M.R. (1997) A guide to RNA editing. *RNA 3*, 1105-1123.

Gott, J.M. (1994) *In vitro* labelling of T4 introns. In *The Molecular Biology of Bacteriophage T4*, (ed. J.D. Karam), American Society for Microbiology, Washington, DC p.472.

Witherell, G.W., Gott, J.M. and Uhlenbeck, O.C. (1991) The specific interaction between RNA phage coat proteins and RNA. In *Prog Nuc Acid Res Molec Biol 40*, pp. 185-220, (eds. W.E. Cohn and K. Moldave), Academic Press, San Diego.

Goodrich, H.A., Gott, J.M., Xu, M-Q., Scarlato, V., and Shub, D.A. (1989) A group I intron in *Bacillus subtilis* bacteriophage SP01. In *Molecular Biology of RNA*, pp. 59-66, (ed. T.R. Cech), Alan R. Liss, Inc., New York.

Shub, D.A., Xu, M-Q., Gott, J.M., Zeeh, A., and Wilson, L.D. (1987) A family of autocatalytic group I introns in bacteriophage T4. *CSH Symp Quant Biol 52*, 193-200.

Belfort, M., Pedersen-Lane, J., Ehrenman, K., Hall, D.H., Povinelli, C.M., Gott, J.M., and Shub, D.A. (1987) Processing and genetic characterization of self-splicing introns of bacteriophage T4. In *The Molecular Biology of RNA: New Perspectives*, pp. 45-66, (eds. M. Inouye and B.S. Dudock), Academic Press, San Diego.

**Research publications**

Beargie, C., Liu, T, Corriveau, M., Lee, H.Y., Gott, J.M., and Bundschuh, R. (2008) Genome annotation in the presence of insertional RNA editing. *Bioinformatics. 24(22),* 2571-2578.

Gott, J.M., Parimi, N. and Bundschuh, R. (2005) Discovery of new genes and deletion editing in *Physarum* mitochondria enabled by a novel algorithm for finding edited mRNAs. *Nuc. Acids Res. 33,* 5063-5072.

Byrne, E.M. and Gott, J.M. (2004) Unexpectly complex editing site patterns at dinucleotide insertion sites in *Physarum* mitochondria. *Mol.Cell Biol. 24,* 7821-7828.

Byrne, E.M., Stout, A. and Gott, J.M. (2002) Editing site recognition and nucleotide insertion are separable processes in *Physarum* mitochondria. *EMBO J 21,* 6154-6161.

Byrne, E.M. and Gott, J.M. (2002) Co-transcriptional editing of *Physarum* mitochondrial RNA requires local features of the native template. *RNA 8*, 1174-1185.

Cheng, Y.-W., Visomirski-Robic, L.M. and Gott, J.M. (2001) Non-templated addition of nucleotides to the 3' end of nascent RNA during RNA editing in *Physarum*. *EMBO J 20*, 1405-1414.

Cheng, Y.-W. and Gott, J.M. (2000) Transcription and RNA editing in a soluble *in vitro* system from *Physarum* mitochondria. *Nucl. Acids Res. 28*, 1-7.

Visomirski-Robic, L.M. and Gott, J.M. (1997) Insertional editing in isolated *Physarum* mitochondria is linked to RNA synthesis. *RNA 3*, 821-837.

Visomirski-Robic, L.M. and Gott, J.M. (1997) Insertional editing of nascent mitochondrial RNAs in *Physarum*. *Proc Natl Acad Sci USA 94*, 4324-4329.

Visomirski-Robic, L.M. and Gott, J.M. (1995) Accurate and efficient insertional RNA editing in isolated *Physarum* mitochondria. *RNA 1*, 681-691.

Rundquist, B.A. and Gott, J.M. (1995) RNA editing of the *coI* mRNA throughout the life cycle of *Physarum polycephalum*. *Molec. Gen. Genetics 247*, 306-311.

Borer, P.N., Lin, Y., Wang, S., Roggenbuck, M.W., Gott, J.M., Uhlenbeck, O.C., and Pelczer, I. (1995) Proton NMR and structural features of a 24-nucleotide RNA hairpin. *Biochemistry 34,* 6488-6503.

Gott, J.M., Visomirski, L., and Hunter, J. (1993) Insertional and substitutional RNA editing of the cytochrome c oxidase subunit 1 mRNA of *Physarum polycephalum*. *J. Biol. Chem*. *268*, 25483-25486.

Gott, J.M., Pan, T., LeCuyer, K. A. and Uhlenbeck, O.C. (1993) Using circular permutation analysis to redefine the R17 coat protein binding site. *Biochemistry 32*, 13399-13404.

Gott, J.M., Wilhelm, L., and Uhlenbeck, O.C. (1991) RNA binding properties of the coat protein from bacteriophage GA. *Nucl. Acids Res. 19*, 6499-6503.

Gott, J.M., Willis, M., Koch, T., and Uhlenbeck, O.C. (1991) A specific, UV-induced RNA-protein crosslink using 5-bromouridine-substituted RNA. *Biochemistry 30*, 6290-6295.

Goodrich-Blair, H.A., Scarlato, V., Gott, J.M., Xu, M-Q., and Shub, D.A. (1990) A self-splicing group I intron in the DNA polymerase gene of *Bacillus subtilis* bacteriophage SP01. *Cell 63*, 417-424.

Shub, D.A., Gott, J.M., Xu, M-Q., Lang, B.F., Michel, F., Tomaschewski, J., Pedersen-Lane, J., and Belfort, M. (1988) Structural conservation among three homologous introns of bacteriophage T4 and the group I introns of eukaryotes. *Proc Natl Acad Sci USA 85*, 1151-1155.

Gott, J.M., Zeeh, A., Bell-Pedersen, D., Ehrenman, K., Belfort, M., and Shub, D.A. (1988) Genes within genes: independent expression of phage T4 intron open reading frames and the genes in which they reside. *Genes & Devel 2*, 1791-1799.

Gott, J.M., Shub, D.A., and Belfort, M. (1986) Multiple self-splicing introns in bacteriophage T4: evidence from autocatalytic GTP labeling of RNA *in vitro*. *Cell 47*, 81-87.