Ravindra Pushker   pushker@pushker.org

Education

- ⋆ Graduate Student (Bioinformatics)   April 2006 - Present
  UCD Complex & Adaptive Systems Laboratory and UCD Conway Institute
  University College Dublin, Ireland

- ⋆ Bachelor of Technology (Electrical Engineering)   2001
  Indian Institute of Technology, Kanpur, India

Professional Experience

- ⋆ Bioinformatics Research Fellow   Jul. 2003 - Mar. 2006
  University of Miguel Hernández, Alicante, Spain

- ⋆ Bioinformatics Software Developer   Jan. 2002 - Jun. 2003
  Institute of Genomics & Integrative Biology, Delhi, India

- ⋆ Bioinformatics Software Consultant   Dec. 2001 - Jan. 2002
  Institute of Genomics & Integrative Biology, Delhi, India

Publications

- ⋆ Mira A., **Pushker R.** and Rodríguez-Valera F. (2006) The Neolithic revolution of bacterial genomes. **Trends in Microbiology**, 14(5):200-206.

- ⋆ D'Auria G., **Pushker R.** and Rodríguez-Valera F. (2006) IWoCS: analyzing ribosomal Intergenic Transcribed Spacer configuration and taxonomic relationships. **Bioinformatics**, 22(5):527-531.

- ⋆ Zaballos M., López-López A., Ovreas L., Bartual S. G., D'Auria G., Legault B., Alba J. C., **Pushker R.**, Daee F. L. and Rodríguez-Valera F. (2006) Comparison of prokaryotic diversity at two offshore oceanic locations reveals a different microbiota in the Mediterranean Sea. **FEMS Microbiology Ecology**, 56(3):389-405.

- ⋆ **Pushker R.**, D'Auria G., Alba-Casado J.C. and Rodríguez-Valera F. (2005) Micro-Mar: a database for dynamic representation of marine microbial biodiversity. **BMC Bioinformatics**, 6:22.

- ⋆ Mira A. and **Pushker R.** (2005) The silencing of pseudogenes. **Molecular Biology and Evolution**, 22(11): 2135-2138.

- ⋆ Mira A., **Pushker R.**, Legault B. A., Moreira D. and Rodríguez-Valera F. (2004) Evolutionary relationships of *Fusobacterium nucleatum* based on phylogenetic analysis and comparative genomics. **BMC Evolutionary Biology**, 4:50.

- ⋆ **Pushker R.**, Mira A. and Rodríguez-Valera F. (2004) Comparative genomics of gene-family size in closely related bacteria. **Genome Biology**, 5:R27.

Book Chapter

- ⋆ Mira A. and **Pushker R.** (2007) Genome architecture and evolution of bacterial pathogens. In: **Evolutionary Biology of Bacterial and Fungal Pathogens**. (Baquero F., Nombela C., Cassell G. H. and Gutiérrez J. A., Eds.). Chapter 12. ASM Press, Washington, D.C.

Invited Reviewer

- ⋆ **Bioinformatics**, Oxford University Press

- ⋆ 3rd ISCB Student Council Symposium (**SCS3**), Vienna, Austria

Research Talks

- ⋆ Micro-Mar, 2007 updates Jul. 2007
  The 3rd Annual International Conference of Metagenomics, UCSD, San Diego, CA.

- ⋆ RNAGeneTracer: a tool to trace evolutionary history of the ribosomal genes Jun. 2007
  Evolutionary Genomics Group, Universidad Miguel Hernández, Alicante, Spain

- ⋆ RNAGeneTracer: a tool to trace evolutionary history of the ribosomal genes Dec. 2006
  International Symposium on Computational Biology & Bioinformatics, Bhubaneshwar, India

- ⋆ Evolution of genome size in Bacteria Nov. 2005
  MRC Laboratory of Molecular Biology, University of Cambridge, UK

- ⋆ Micro-Mar: a database for dynamic representation of marine microbial biodiversity Nov. 2005
  Max Planck Institute for Marine Microbiology, Bremen, Germany

- ⋆ Evolution of genome size in Bacteria Aug. 2005
  CMBI, Radboud University, Nijmegen, Netherlands

- ⋆ Evolution of genome size in Bacteria Aug. 2005
  Royal College of Surgeons, Dublin, Ireland

- ⋆ Micro-Mar: a prokaryotes database to correlate habitat with taxonomy Jun. 2004
  University of East Angelia, Norwich, UK

Fellowships/Grants

- ⋆ Metagenomics 2007 Student Travel Grant Jul. 11 - 13, 2007
  3rd Annual International Conference on Metagenomics, UCSD, CA

- ⋆ ECCB 2006 Travel Fellowship Jan. 21 - 24, 2007
  5th European Conference on Computational Biology, Eilat, Israel

- ⋆ Science Foundation Ireland Fellowship Apr. 2006 - Mar. 2009
  Conway Institute, University College Dublin, Ireland

- ⋆ European Commission Fellowship Jul. 2003 - Mar. 2006
  University of Miguel Hernández, San Juan, Alicante, Spain

- ⋆ TCG Chembiotek Fellowship Jan. 2002 - Jun. 2003
  Institute of Genomics & Integrative Biology, Delhi, India

Posters Presented

- ⋆ **Pushker R.**, Mira A. and Rodríguez-Valera F. (Jan. 2007) Genomic location and the evolution of paralogous genes. 5th European Conference on Computational Biology, Eilat, Israel.

- ⋆ **Pushker R.** and Mira A. (Dec. 2006) Genome asymmetry : evaluating genome balance hypothesis in bacteria. International Conference in Bioinformatics (INCOB) 2006, New Delhi, India.

Posters communicated

⋆ **Pushker R.**, Gautam R. and Mira A. (Jul. 2007) RNAGeneTracer: a tool to trace evolutionary history of the ribosomal genes. 15th Annual International Conference on Intelligent Systems for Molecular Biology (ISMB) & 6th European Conference on Computational Biology (ECCB), Vienna, Austria.

⋆ D'Auria G., **Pushker R.**, Alba-Casado J.C. and Rodríguez-Valera F. (Oct. 2006) Micro-Mar: a database for dynamic representation of marine microbial biodiversity. The First Annual International Conference of Metagenomics, UCSD, CA.

⋆ D'Auria G., **Pushker R.**, Alba-Casado J.C. and Rodríguez-Valera F. (Jun. 2006) Micro-Mar: a database for dynamic representation of marine microbial biodiversity. International Census of Marine Microbes 1st Annual Meeting, The Netherlands.

⋆ Mira A., **Pushker R.** and Rodríguez-Valera F. (Sep. 2005) Evolution of paralogous genes. CIAR Evolutionary Biology Program, Nanaimo, Canada.

⋆ Mira A. and **Pushker R.** (Sep. 2005) The silencing of pseudogenes. 4th European Conference on Computational Biology, Madrid, Spain.

⋆ **Pushker R.**, D'Auria G., Alba-Casado J.C. and Rodríguez-Valera F. (Sep. 2005) Micro-Mar: a database for dynamic representation of marine microbial biodiversity. XX Congreso Nacional de la SEM, Cáceres, Spain

⋆ Alba-Casado J. C., **Pushker R.** and Rodríguez-Valera F. (Nov. 2004) Micro-Mar : a marine prokaryotes database to correlate habitat with taxonomy. International Conference on Marine Biodiversity Data Management, Hamburg, Germany.

⋆ Zaballos M., López-López A., Ovreas L., Bartual S. G., Legault B., Alba J. C., **Pushker R.**, Daee F. L. and Rodríguez-Valera F. (Aug. 2004) Comparison of bacterial diversity at two offshore oceanic locations and depths. 10th International Symposium on Microbial Ecology ISME 10, Cancun, Mexico.

⋆ Alba-Casado J. C., **Pushker R.** and Rodrguez-Valera F. (Oct. 2003) Micro-Mar : A marine prokaryotes database to correlate habitat with taxonomy. XIX Congreso National de Microbiologoia, Santiago de Compostela, Spain.

Meetings & Workshops

⋆ Innovations in Drug Discovery and Development   Apr. 16 - 17, 2008
  IBM Life Sciences Virtual Conference and Expo

⋆ MASAMB-2006, Mathematical and Statistical Aspects of Molecular Biology   Apr. 10 - 11, 2006
  Conway Institute, University College Dublin, Ireland

⋆ GEMINI: Gene Discovery through Environmental Metagenomics, Annual Meeting   June 26, 2004
  University of East Angelia, Norwich, UK

⋆ Parallel and Grid Computing   Mar. 11 - 16, 2002
  Institute of Physics, Bhubaneswar, India and INRIA, France

⋆ C++ and Object Oriented Programming   Jul. 09 - 28, 2001
  Indian Institute of Technology, Delhi, India

Memberships

- ⋆ International Society for Computational Biology (ISCB), Student Membership   2006 - Present
- ⋆ Public Library of Science (PLoS), Indivisual Membership   2006
- ⋆ Institute of Electrical and Electronics Engineers (IEEE), Student Membership   2006

Courses done during PhD

- ⋆ Population Genetics & SNP Analysis   Jun. 6 - 7, 2007
  Institute of Molecular Medicine, St James's Hospital, Dublin, Ireland

- ⋆ Drug Design: Principles and Techniques   Apr. 19 - 24, 2007
  Royal College of Surgeons in Ireland, Dublin, Ireland

Technical Skills

Programming Languages	:	C, PERL, PHP, SQL, BioPERL
Internet Technologies	:	Javascript, CGI in C and PERL,
		LAMP (The open source web platform)
Markup Languages	:	HTML, LaTeX
Databases	:	MySQL
Software Tools	:	CVS, GIMP, gnuplot, Adobe Photoshop, Illustrator and Flash
Bioinformatics Tools	:	BLAST, EMBOSS, PHYLIP, PAML, Clustalw,
		FASTGroup, GLIMMER, OriLoc, Reputer, DNAMaster, ARB
		KEstimator, BioEdit, TreeView, Artemis
Operating Systems	:	Linux (Fedora), Unix
		MS Windows 9X/NT/2K/XP/Vista
Parallel Computers	:	Linux Cluster having 28 processors
		Compaq Alpha Server having 32 processors

Personal Details

Father's Name	:	Ram Swaroop
Date of Birth	:	1978
Gender	:	Male
Marital Status	:	Single
Nationality	:	Indian
Correspondence	:	Clinical Bioinformatics Lab
Address		UCD Complex & Adaptive Systems Laboratory
		University College Dublin
		Belfield, Dublin 4
		Dublin, Ireland
Tel.	:	+353 1 7165334
Mobile	:	+353 863708771
Email Addresses	:	pushker@pushker.org, pushker@ucd.ie
WWW Address	:	http://www.pushker.org