Dr. ANIRUDDHA CHATTERJEE-CURRICULUM VITAE

CAREER OBJECTIVE

To become a successful researcher in the field of epigenetics by utilizing my skills and enable further personal and professional development and work towards the prosperity of the organization.

SKILL SET AND INTEREST

Epigenetics (DNA methylation), Gene expression and next generation sequencing technologies.

PERSONAL PROFILE

Name	Dr. Aniruddha Chatterjee
Department	Pathology, University of Otago, New Zealand
PO Box/Street number & name	270, Great King Street, PO Box 913
City and postal code	Dunedin 9054
Telephone	64 03 210701558
Email	aniruddha.chatterjee@otago.ac.nz
Date of Birth	10-10-1984
Sex	Male

EDUCATIONAL PROFILE

Degrees/Diplomas	University	Grade	Year conferred	Rank/Award
Doctor of Philosophy (Pathology/ Epigenetics)	University of Otago	NA	2013	NA
M.Sc (Biotechnology)	VIT University	88.90	2008	1st class with Distinction
B.Sc (triple majors in-Biotechnology, Biochemistry, Chemistry)	Osmania University	84.00	2006	1st class with Distinction
Higher secondary (HS)	Krishnath college school, WBCHSE	80.00	2002	State rank
Secondary School	Krishnath college school,WBBSE	85.40	2000	State rank

HONOURS AND AWARDS

Honours, prizes, scholarships	Year awarded
Best poster prize: Illumina Asia Pacific Scientific summit, Phuket, Thailand	2013
Travel Fellowship: Maurice Phylis Paykel Trust, New Zealand	2012
AGRF Young Investigator Award: Australian Epigenetic Alliance meeting, Melbourne, Australia.	2011
NRCGD trainee development fund award, New Zealand	2010,11, 12
Travel Award: 'Functional Genomics, Gene Expression and Proteomics Research Theme', New Zealand	2011
Post-Graduate fellowship (PhD studies): National Research Centre for Growth and Development (NRCGD), Center of Research Excellence, New Zealand	2009-13
Travel and exchange scholarship: Flanders institute of Biotechnology, Belgium	2009
Medal for ranking 1st class 1st in B.Sc (Osmania University), India	2004
National scholarships for state rank (secondary and Intermediate), Govt. of India	2000, 2002

National NIIT scholarship for aptitude, Kolkata, India	2000
Winner of district and state science quiz contest, Berhampore, India	1998, 2000
National science talent awards (Indian Science Congress Association)	1993, 1994

INDUSTRIAL & OTHER TRAININGS:

Training	Organisation/ Place	Year
R-Statistical programming	Dept. of Mathematics, University of Otago	2014
R-Statistics Overview	IT training department, University of Otago, Dunedin, New Zealand.	2012
Linux-Ubuntu Desktop Introduction	IT training department, University of Otago, Dunedin, New Zealand.	2011
Intensive writing retreat course for scientific publication	National Research Centre for Growth and Development, Auckland, New Zealand	2010
The Researchers Guide to Next generation Sequencing	University of Otago, Dunedin, New Zealand.	2010
Illumina sequencing analysis workshop	Massey University, Palmerston North, New Zealand.	2010

RESEARCH GRANTS

Project title	Funding body/Year	Role	Amount
A sub-set of fetal growth restriction is affected by DNA damage that impairs placental function.	Gravida, New Zealand, 2013	Associate investigator	NZD $35306
Does epigenetic variation alters susceptibility to common diseases and phenotypic outcomes in healthy individuals?	Dunedin school of Medicine, University of Otago, 2013.	Associate investigator	NZD $15000

PUBLICATIONS

Pubmed Indexed:

21. Stockwell PA, **Chatterjee A**, Rodger EJ, Morison IM "*DMAP: Differential Methylation Analysis Package for RRBS and WGBS data"* Bioinformatics advanced online publication: March 7, 2014.

20. Chatterjee A, Rodger EJ, Stockwell PA, Le Mée G, Morison IM "*Generating Multiple Base-resolution DNA Methylomes Using Reduced Representation Bisulfite Sequencing"* Methods in Molecular Biology (Springer), In press.

19. Chatterjee A, Yuichi O, Stockwell PA, Horsfiled JA, Morison IM & Nakagawa SN ***"****Mapping the zebrafish brain methylome using reduced representation bisulfite sequencing"* Epigenetics 8:9, 1–11; 2013. [Cover story in Epigenie].

18. Laskar A, **Chatterjee A,** Chatterjee S, Rodger EJ**. "***Three dimensional molecular modeling of a diverse range of SC clan serine proteases*" Molecular Biology International, 2012: October (2012).

17. **Chatterjee A*** "*Epigenetic regulation: from mechanism to intervention".* Epigenomics 4(5):1-4 (2012).

16. Chatterjee A, Rodger EJ, Stockwell PA, Weeks RJ, Morison IM**. *"****Technical considerations for reduced representation bisulfite sequencing with multiplexed libraries"* Journal of Biomedicine and Biotechnology, October, volume 2012. [Key technical article in Epigenie, Customer success story by Agilent]

15. Laskar A, Rodger EJ, **Chatterjee A "***Modeling and structural analysis of PA clan serine proteases*" BMC Research Notes. 24; 5(1):256 (2012).

14. **Chatterjee A**, Stockwell PA, Rodger EJ, Morison IM. "*Comparison of alignment software for genome-wide bisulphite sequence data"* Nucleic Acids Research. 40(10): e79 (2012). [Editors choice article –Genome web, February 2012. Most read article March, May 2012, NAR].

13. Chatterjee A, & Morison IM. "*Monozygotic twins: genes are not the destiny?"* Bioinformation. 7(7): 369-370 (2011).

12. Laskar A, Rodger EJ, **Chatterjee A**, Mandal C. "*Modeling and structural analysis of evolutionarily diverse S8 family serine proteases*" Bioinformation. 7(5): 239-245 (2011).

Pubmed non-indexed:

11. Chatterjee A, & Basu A**.** "*Rubisco: Limitations and re-engineering for a better enzyme*" International Research Journal of Plant Science. 2(2): 022-024 (2011).

10. Chatterjee A, & Pan A "*Horizontal Gene Transfer-a Genomic Perspective*" Online Journal of BioTechnology Research, 1 (4): 167-169, (2010).

9. Laskar A, Mandal CN, & **Chatterjee A.** "*Protease-Inhibitor Interactions – A structural Insight*" International Journal of Biotechnology & Biochemistry (IJBB) Vol 6, no.2, 231-258, (2010).

8. Basu A, **Chatterjee A,** & Kottalil MD. "*Helicobacter pylori: revisiting the role of host genetics in susceptibility to infectious diseases*" Journal of Computational intelligence and Bioinformatics (JCIB) for the issue 1, VOL 3, 1-9, (2010).

7. Laskar A, & **Chatterjee A**. "*Protease – Revisting the Types and Potential*" Online Journal of Biotechnology Research (OJBR) 1(1): 55-61, (2009).

6. Laskar A, & **Chatterjee, A**. "*Computer aided Molecular Modelling and its implications*" Bioinformatics Trends, p 85-92, Volume 4, Issue no.1, (2009).

5. Chatterjee, A.* "*St. John's Wort (Hypericum perforatum): A Review on Pharmacodynamics and Therapeutic Potential*", Herbal Tech Industry, 18-22, Issue 5, Vol 05, (2009).

4. Chatterjee A. *"Bdellovibrio bacteriovorus: "Life cycle and potential as a predatory renaissance*" Advanced Biotech, 27-29, Vol VIII, Issue 09 ISSN 0973-0109, (2009).

3. Shrivastava R, Sarkar R, **Chatterjee A,*** & Khadikar PV. "*QSAR Studies on the Action of an Algicide from a Cyanobacterium: Oscillatoria laetevirens, on Photosystem II Activity*" Advanced Biotech, 15-18, Vol VIII, Issue 08, (2009).

2. Shrivastava R, Chauhan KU, Sarkar R, & **Chatterjee A.*** "*Observation On The Reaction Rate Kinetics In Cellulosic Paper Waste*" Advanced Biotech, 21-25, Vol VIII, Issue 07, (2009).

1.Chatterjee A, & Sarkar R "*RNA Interference (RNA i):A novel strategy in health care and crop improvement*" Advanced Biotech, 36-38, issue Vol VII, Issue 3, ISSN 0973-0109, (2008).

BOOK:

Aniruddha Chatterjee and Archana Pan "Genome and proteome composition of *Bdellovibrio bacteriovorous*" subtitle- Indications for recent horizontal gene transfer in *Bdellovibrio bacteriovorous*". Lambert Academic publishing (LAP), Germany, ISBN: 978-3-8484-4989-7. [Work carried out as part of MSc thesis project at the Indian Institute of Chemical Biology (A CSIR Unit, Govt. of India), Kolkata].

CONFERENCE CONTRIBUTION AND OTHER DISSEMINATION

Talks:

14. **Chatterjee A.** (2013, December) *Reduced representation bisulfite sequencing of human neutrophils reveals widespread inter-individual epigenetic variation.* PhD exit seminar, D'ath Lecture Theatre, University of Otago, New Zealand.

13. Morison IM, **Chatterjee A**, Stockwell PA. (2013, September) *Epigenetic variation in healthy persons: where is it and what does it mean?* Queenstown Molecular Biology Meeting (epigenetics satellite), Queenstown, New Zealand. *IMM presented.

12. Stockwell PA, **Chatterjee A,** Rodger EJ, Morison IM. (2013, February) *Base- resolution Mapping of Multiple Methylome using RRBS*. Otago Genomics 2013, Dunedin, New Zealand. *PAS presented.

11. **Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM. (2012, November). *Genome-wide DNA Methylation Map Indicates Widespread Epigenetic Variation in Normal Individuals.* GRAVIDA science symposium, Palmerston North, New Zealand.

10. Stockwell PA, **Chatterjee A,** Rodger EJ, Morison IM. (2012, August) *Differential Methylation Analysis using RRBS: Challenges and New Insights*. 4th Next Generation Sequencing Conference, Dunedin, New Zealand. *PAS presented.

9. **Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM. (2012, August). *Reduced representation bisulphite sequencing indicates widespread epigenetic variation among normal individuals*. 4th Next Generation Sequencing Conference, Dunedin, New Zealand.

8. **Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM. (2011, November). *Genome-wide Methylation sequencing: Unravelling inter-individual variation*. *Alternative title: RRBS: tips, tricks, pitfalls.* NRCGD annual science symposium, Dunedin, New Zealand.

7. **Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM. (2011, September).*Genome-wide Methylation sequencing: Unravelling inter-individual variation*. *Alternative title: RRBS: tips, tricks, pitfalls.* Department of Pathology, Dunedin, New Zealand.

6. Rodger EJ, **Chatterjee A,** Stockwell PA, Morison IM. (2011, September) *Mapping the methylome of myelodysplasia.* Queenstown Molecular Biology Meeting (epigenetics satellite), Queenstown, New Zealand. *REJ presented.

5. **Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM. (2011, September). *Genome-Scale DNA Methylation Mapping: Unravelling inter-individual variation*. Queenstown Molecular Biology Meeting (epigenetics satellite), Queenstown, New Zealand.

4. **Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM. (2011, August). Genome-Scale DNA Methylation Mapping: Unravelling inter-individual variation. Australian Epigenetic Alliance–Victorian Branch Meeting, Melbourne, **Australia**.

3**. Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM. (2011, March). *Genome-wide methylation sequencing*. NRCGD epigenetics workshop, Dunedin, New Zealand.

2. **Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM. (2011, February). *Bisulphite Sequencing Reduces Complexity: Yeah Right!.* Otago Genomics annual meeting, University of Otago, Dunedin, New Zealand. *PAS.

1**. Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM. (2010, November). *Genome-Scale DNA Methylation Mapping: Unravelling inter-individual variation*. Genetics Otago 2010, Dunedin, New Zealand

Poster:

10. **Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM.. *Reduced representation bisulphite sequencing for profiling inter-individual epigenetic variation in normal population.* Advances in Genome Science, Illumina Asia Pacific Scientific summit, Phuket, Thailand, April 21-24. 2013.

8,9. **Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM. *Base-pair resolution DNA methylation map of neutrophils indicates widespread epigenetic variation among normal individuals.* Queenstown Molecular Biology main meeting, Queenstwon, New Zealand, 2012 and Division of Heath Sciences Forum, Dunedin, New Zealand, September, 2012.

7. **Chatterjee A,** Stockwell PA, Rodger EJ, & Morison IM. (2012, June). *Genome-wide Methylation sequencing: Unravelling inter-individual variation*. **MRC Clinical Sciences Centre Symposium**- Epigenetic Regulation: From Mechanism to Intervention**, London, United Kingdom**.

6. **Chatterjee A**, Rodger EJ, & Morison IM. (2010, August). *Genome-scale DNA methylation mapping in normal population.* Poster presented at the NRCGD annual symposium, Auckland, New Zealand.

5. **Chatterjee A**, Rodger EJ, & Morison IM. (2010, August). *Genome-scale DNA methylation mapping in normal population.* Poster presented at the Next generation Sequencing conference, Dunedin, New Zealand.

4. **Chatterjee A**, Rodger EJ, & Morison IM. (2010, September). *Genome-scale DNA methylation mapping in normal population.* Poster presented at the Queenstown Molecular Biology Meeting (both main meetings and cancer satellite), Queenstown, New Zealand.

3. Rodger EJ, **Chatterjee A,** & Morison IM. (2010, September). *DNA methylation profiling of myelodysplastic syndrome.* Poster presented at the Queenstown Molecular Biology Meeting (main meetings), Queenstown, New Zealand.

2. **Chatterjee A**, Rodger EJ, & Morison IM. (2010, September). *Genome-scale DNA methylation mapping in normal population.* Poster presented at the Fourth Annual Division of Health Sciences Research Forum, Dunedin, New Zealand.

1. Chatterjee A, Basu A and Kottalil MD. (2009, March) *RNA Interference (RNA i): A novel strategy for engineering of food plants*. National Seminar on Recent Advances in Biotechnology,Tiruchirappalli,India.

RADIO INTERVIEW:

Aniruddha Chatterjee was interviewed by Radio One Dunedin (91FM) in the post-graduate show Rush Hour on 8 th February, 2012 to talk about Epigenetics and the PhD project on inter-individual variation of DNA methylation in Prof. Ian Morison's lab. [Link: http://postgradradio.tumblr.com/post/17357841587/zoe-patterson-ross-interviewed-aniruddha]

ORGANIZATION AND LEADERSHIP

4. PhD representative for the division of Health sciences, Department of Pathology and Dunedin School of Medicine at the University of Otago, New Zealand (December 2010- August 2013).
3. Otago University Peer support group leader (2011-2013).
2. Elected as the **class representative for consecutive 3 times** in VIT University, Vellore (2006-2008)
1. Moderator and event coordinator in the scientific session **''GM Crops at the crossroads''** (2007, March), VIT University, Vellore, India.

EMPLOYMENTS

Employments	From year	To year
Post-doctoral Fellow, Department of Pathology, University of Otago, New Zealand	November 2013	ongoing
Research Assistant, Department of Pathology, University of Otago, New Zealand	2010 (May)	2013 (October)
Demonstrator: Department of Biochemistry, University of Otago, New Zealand	2010	2012
Demonstrator: Department of Anatomy, University of Otago	2011	2012
Lecture supervisor: Department of Zoology, University of Otago	2011 (February)	2011 (June)
Programmer trainee, Software developer: Cognizant Technology Solutions, Coimbatore, India.	2009 (August)	2009 (October)

REFERENCES

Professor Ian Morison: Professor, Dept. of Pathology, Dunedin School of Medicine, University of Otago, New Zealand, Email - ian.morison@otago.ac.nz, Phone- +64-3-4797170

Professor Mike Eccles: Professor and chair in Cancer Pathology, Dept. of Pathology and New Zealand Institute for Cancer Research, New Zealand, Email: michael.eccles@otago.ac.nz, Phone- +64 3 479 7878

Dr. Peter Stockwell: Scientific officer, Department of Biochemistry, University of Otago, New Zealand, Email- peter.stockwell@otago.ac.nz, Phone- +64-3-4797880

Dr. Euan Rodger: Research Fellow, Dept. of Pathology, Dunedin School of Medicine, University of Otago, New Zealand, Email – euan.rodger@otago.ac.nz, Phone- +64-3-4703455