



René L Warren

warrenlr@gmail.com 778 . 386 . 4192 <http://renewarren.ca>

I am a scientist with 20+ years experience in biotechnology, genomics, informatics

I have played a central role in managing the bioinformatics of large international collaborations to decrypt the genomes of *Rhodococcus*, *Cryptococcus*, Bullfrog and Spruce

I developed the first software for *de novo* genome assembly with then emerging short DNA sequences and pioneered the development of technologies that enabled the discovery of *Fusobacterium* in colon cancer, one of *Time Magazine's* top ten medical breakthrough of 2011

I am the BC Genome Sciences Centre's bioinformatics technology lab Group Leader
In that role, I have conceptualized/led the development of genome analysis technologies
I mentored over half a dozen undergraduate students, their work has led to first authorship

seeking additional challenges and leadership

PROFESSIONAL EXPERIENCE

Group Leader

2017 – **BC Cancer Agency – Genome Sciences Centre**, Vancouver
present

- Provide project leadership, expertise, guidance
- Plan / coordinate group activities
- Supervise / mentor biologists & programmers
- Conceptualize development of bioinformatics technologies
- Write research proposals
- Interview candidates / teach and train personnel
- Recruit and mentor COOP students & interns

Coordinator

2002 – **BC Cancer Agency – Genome Sciences Centre**, Vancouver
2017

- Lead bioinformatics software R&D (Python, PERL, R, unix)
- Published research in reputed journals / international conferences
- Developed marketing (web portals / news release)
- Supervised a team of biologists and programmers
- Interviewed job candidates, taught and trained employees

Officer

2000 – **NRC – CNRC – Biotechnology Research Institute**, Montréal
2001

- Co-engineered a system for regulating gene expression in cells
- Designed, fabricated and tested components of the DNA “gene switch”
- Work led to a patent, technology sold to company

EDUCATION

- 2000 – **Certificate Computer Science** | Concordia University
2001
1997 – **MSc Biochemistry & Molecular Biology** | UBC
1999
1994 – **BSc Biochemistry** *Dean's Honours List* | Université de Montréal
1997

ADDITIONAL INFORMATION

- 2015, 16 Recipient of the *John Jambor Knowledge Fund* travel award
2011 Interviewed by *NTN24* channel for *Fusobacterium* discovery colon cancer
2009 Interviewed by *Genome Technology* to discuss next-generation sequencing
2007 Interviewed by *GenomeWeb* for the development of SSAKE
1998 UBC Graduate Fellowship awarded for MSc
1997 *Fonds de la Recherche en Santé Québec* (FRSQ) awarded for BSc
1996 Bursary from FRSQ for BSc honour's research project
1995 Worked at NASA to coordinate the crystallization of proteins under microgravity : CMIX-4 payload, space shuttle *Endeavour*

PRESENTATIONS

(selected from 16)

- 2017, 18 Research in Computational Molecular Biology, Hong Kong / Paris – **talks**
2015, 16 Intelligent Systems for Molecular Biology, Dublin UK / Orlando USA - **talks**
2008, 12, 15 Pacific Symposium on Biocomputing, Kona, Hawaii USA – **posters**
2010 Sequencing, Finishing and Analysis in the Future, Santa Fe USA – **talk**
2007 Synthetic Biology 3.0 conference, Zürich, Switzerland – **talk**

PUBLICATIONS

(selected from 58 *co-first authors)

- Warren RL.** (2018) Visualizing genome synteny with xmatchview. *Journal of Open Source Software*. 3:497
Warren RL, et al. (2015) LINKS: Scalable, alignment-free scaffolding of draft genomes with long reads. *GigaScience* 4:35
Warren RL, et al. (2012) Derivation of HLA types from shotgun sequence datasets. *Genome Med.* 4:95
Castellari M*, **Warren RL***, et al. (2012) *Fusobacterium nucleatum* infection is prevalent in human colorectal carcinoma. *Genome Research*. 22:299-306
Warren RL, et al. (2007) Assembling millions of short DNA sequences using SSAKE. *Bioinformatics*. 23:500
E Allen-Vercoe, R Holt, R Moore, **R Warren**. Detection of fusobacterium in a gastrointestinal sample to diagnose gastrointestinal cancer. US Patent App. 13/877,421 / WO Patent 2,012,045,150

REFERENCES

Available upon request