René L Warren

warrenlr@gmail.com 778 . 386 . 419 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 *Rhodococus*, *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 scaffolders for long read data
I mentored over half a dozen undergraduate students, their work has led to first authorship

I am eager to take on additional challenges and leadership

PROFESSIONAL EXPERIENCE

2017 – present

Group Leader

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

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

2002 – 2017

Coordinator

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

- 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

2000 – 2001

Officer

***NRC-CNRC* - Biotechnology Research Institute**, Montréal QC

- 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 – 2001	**Cert. Courses, Computer Science** Concordia University, Montréal, Canada
1997 – 1999	**MSc Biochemistry & Molecular Biology** University of British Columbia, Vancouver, Canada
1994 – 1997	**BSc Biochemistry** Dean's Honours List Université de Montréal, Montréal, Canada

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 – **talk**
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 56 *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

Castellarin 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