René L Warren

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

scientist with 20+ years experience in biotechnology, genomics, bioinformatics

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 (*SSAKE*) 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 – present

BC Cancer Agency – Genome Sciences Centre, Vancouver

- Project leadership, expertise, guidance
- Coordinate research activities
- Interview, supervise, mentor COOP students and staff
- Conceptualize development of bioinformatics technologies
- Write research proposals and scientific articles

Coordinator

2002 – 17

BC Cancer Agency – Genome Sciences Centre, Vancouver

- Lead bioinformatics software R&D (Python, PERL, R, unix)
- Published research (scientific 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 – 01

NRC – CNRC – Biotechnology Research Institute, Montréal

- Engineered gene expression regulation technology (molec/cell biology)
- Designed, fabricated, tested components of the DNA "gene switch"
- Work led to a patent, technology sold to company

EDUCATION

2000 – 01	**Certificate Computer Science**	| Concordia University
1997 – 99	**MSc Biochemistry & Molecular Biology**	| UBC
1994 – 97	**BSc Biochemistry** *Dean's Honours List*	| Université de Montréal

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

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