

# René



# Warren

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**20+ yrs experience in biotechnology, genomics, informatics**

Developed the first *de novo* genome assembly software (SSAKE) with short DNA sequences

Discovered *Fusobacterium* in colon cancer, one of *Time Magazine's* 2011 top ten breakthrough

Coordinated bioinformatics analyses of *Rhodococcus*, *Cryptococcus*, Bullfrog, Spruce genomes

**I am seeking new challenges & additional leadership**

## PROFESSIONAL EXPERIENCE

2017 – now

### ***Group Leader***

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

- Lead group, provide project management, expertise, guidance
- Conceptualize / lead the development of genome analysis technologies
- Interview, supervise, mentor COOP students and staff

2002 – 17

### ***Coordinator***

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

- Lead bioinformatics R&D (Python, PERL, R, MySQL, HTML/CSS/js, unix/mac/win.)  
Technologies dev.: *SAM*, *SSAKE*, *TASR*, *HLAminer*, *LINKS*, *xmatchview*, *PASS*, *RAILS*, *ARCS*
- Published research (scientific journals, international conferences)
- Interviewed, taught, trained, supervised biologists and programmers

2000 – 01

### ***Officer***

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

- Engineered gene expression regulation technology (molecular / cell biology)
- Designed, fabricated, tested components of DNA “gene switch”
- Collaborated with stakeholders, chemists, molecular and cell biologists

## 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     Awarded the *John Jambor Knowledge Fund* for presenting at conferences
- 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     Awarded the UBC Graduate Fellowship for MSc studies
- 1997     Awarded *Fonds de la Recherche en Santé Québec* (FRSQ) for BSc studies
- 1996     Awarded 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 lead author*

- 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 peer-reviewed [22 lead author]*

- Warren RL.** 2018. Visualizing genome synteny with xmatchview. *J. 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     \*co-first authors
- Warren RL, et al.** 2007. Assembling millions of short DNA sequences using SSAKE. *Bioinfo*. 23:500

## REFERENCES

*Available upon request*