



René L Warren

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I am a researcher with 20+ years experience in biotechnology, genomics and 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 currently lead the BC Genome Sciences Centre's bioinformatics technology lab
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

Feb 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

Jan 2002 –
Jan 2017

Coordinator

BC Cancer Agency – Genome Sciences Centre, Vancouver BC

- Lead bioinformatics software R&D
- 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

Jan 2000 –
Dec 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

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| Sep 2005 – Jun 2006 | Management Courses Provincial Health Services Authority, Vancouver, Canada |
| Sep 2000 – Dec 2001 | Cert. Courses, Computer Science Concordia University, Montréal, Canada |
| Jun 1997 – Aug 1999 | MSc Biochemistry & Molecular Biology University of British Columbia, Vancouver, Canada |
| Sep 1994 – May 1997 | BSc Biochemistry Dean's Honours List Université de Montréal, Montréal, Canada |

ADDITIONAL INFORMATION

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| 2015, 16 | Recipient of the <i>John Jambor Knowledge Fund</i> travel award |
| 2011 | Interviewed by <i>NTN24</i> channel for <i>Fusobacterium</i> discovery colon cancer |
| 2009 | Interviewed by <i>Genome Technology</i> to discuss next-generation sequencing |
| 2007 | Interviewed by <i>GenomeWeb</i> for the development of SSAKE |
| 1998 | UBC Graduate Fellowship awarded for MSc |
| 1997 | <i>Fonds de la Recherche en Santé Québec</i> (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 <i>Endeavour</i>] |

PRESENTATIONS (selected from 15)

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| 2017 | Research in Computational Molecular Biology, Hong Kong – 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)

- Yeo S*, Coombe L*, **Warren RL***, Chu J, Birol I. (2017) ARCS: Assembly Roundup by Chromium Scaffolding. *Bioinformatics*. doi:10.1093/bioinformatics/btx675
- 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
- Warren R, Hsiao WW et al.** (2004) Functional characterization of a catabolic plasmid from polychlorinated-biphenyl degrading *Rhodococcus* sp. strain RHA1. *J. Bacteriol.* 186:7783-7795

REFERENCES

Available upon request