# Curriculum Vitae

Christian I Hong

## Academic Degrees

- Ph.D., Biology, Virginia Polytechnic Institute & State University, December 2003.
  Thesis: Modeling of Circadian Rhythms: Robust Temperature Compensation in *Drosophila melanogaster* and Testable Hypotheses in *Neurospora crassa*.
- M.S., Biology, Virginia Polytechnic Institute & State University, May 1999.
  Thesis: Mathematical Modeling of Circadian Rhythms In *Drosophila melanogaster*.
- B.S., Biology, Virginia Polytechnic Institute & State University, May 1997.
  In Honors, Thesis: A Proposal for Temperature Compensation of the Circadian Rhythm in *Drosophila* Based On Dimerization of the PER Protein.

## Professional Experience

### Fellowships and Awards

- The 2008 Kronauer Award in Excellence in Biomathematical Modeling (June, 2008)
- Travel award, Computational Cell Biology, Cold Spring Harbor & Wellcome Trust, Hinxton, UK (March, 2008)
- Invited fellow, the Kavli Institute for Theoretical Physics workshop on Biological Switches and Clocks (July – August 2007)
- National Academies Keck *Futures Initiative* Signaling Grant (May 2004 – April 2006)
- Visiting fellow, the University of Stavanger, Norway, Norwegian research council: Leiv Eirikson mobility grant (August – October 2005)
- Travel award, The European Conference on Mathematical and Theoretical Biology, Dresden, Germany (July, 2005)
- Junior Fellow, the Collegium Budapest, Institute for Advanced Study in Budapest, Hungary (February – July 2003)

### Invited Talks

- Harvard Medical School, Boston, MA (June, 2008)
- The Microsoft Research – University of Trento, Center for Computational and Systems Biology, Trento, IT (April, 2008)
- Comp. Cell Biology, Cold Spring Harbor & Wellcome Trust, Hinxton, UK (March, 2008)
- Society for Research on Biological Rhythms Conference, Whistler, BC (June, 2004)
- The Kavli Institute for Theoretical Physics on Biological Networks Workshop at UCSB, Santa Barbara, CA (March, 2003)
- Society for Research on Biological Rhythms Conference, Amelia Island, FL (May, 2002)

### Poster Presentations

- Gordon Research Conference in Chronobiology, Newport, RI (July, 2009)
- The Society for Research on Biological Rhythms Conference, San Destin, FL (May, 2008)
- 72$^{nd}$ Cold Spring Harbor Lab. Symp.: Clocks & Rhythms, Long Island, NY (May, 2007)
- The Society for Research on Biological Rhythms Conference, San Destin, FL (May, 2006)

- The European Conference on Math. and Theoretical Biol., Dresden, Germany (July, 2005)
- Keck Futures: Mathematical Models in Signaling Systems Conference at Vanderbilt University, Nashville, TN (June 2004)
- Virginia Tech Biology Department Research day, Blacksburg, VA (September, 2003)
- Gordon Conference in Theoretical Biology & Biomathematics, Tilton, NH (June, 2002)
- The Society for Mathematical Biology Conference, Salt Lake City, UT (August, 2000)
- Gordon Research Conference in Theoretical Biology, Tilton, NH (June, 2000)

**Professional Memberships**

- Member, the Society for Mathematical Biology (June 2000 – present)
- Member, Korean-American Scientists and Engineers Association (Fall, 2002 - present)

**Services**

- Conference co-chair, Young Generation Technical Leadership Conference (YGTLC), Dallas, TX (Jan, 2009)
- Advisor, Agape Christian Fellowship at Dartmouth, Hanover, NH (Fall, 2007 – present)
- Assistant staff, Logos Community Church, Hanover, NH (Fall, 2006 – present)

**Selected Publications**

1. **Hong, C.I.**, Zamborszky, J., & Csikasz-Nagy, A. Minimum criteria for DNA damage-induced phase advances in circadian rhythms, *PLoS Comput Biol*., (cover article, published online, May 8th, 2009).
2. **Hong, C.I.**, Ruoff, P., Loros, J.J., & Dunlap, J.C. Closing the circadian negative feedback loop: FRQ-dependent clearance of WC-1 from the nucleus, *Genes & Development*, published online, Nov 7th, 2008.
3. **Hong, C.I.**, Jolma, I.W., Loros, J.J., Dunlap, J.C., & Ruoff, P. Simulating dark expressions and interactions of *frq* and *wc-1* in the *Neurospora* circadian clock, *Biophysical Journal*, 2008; 94: 1221-1232.
4. **Hong, C.I.**, Conrad, E., & Tyson, J.J. A proposal for robust temperature compensation of circadian rhythms, *Proc Natl Acad Sci* USA, 2007; 104:1195-1200.
5. Zamborszky, J., **Hong, C.I.**, & Csikasz-Nagy, A. Computational analysis of mammalian cell division gated by a circadian clock: Quantized cell cycles and cell size control, *J Biol Rhythms*, 2007; 22: 542-553.
6. Zamborszky, J., **Hong, C.I.**, & Csikasz-Nagy, A. Connection between the cell cycle and the circadian rhytm in mammalian cells, FEBS Journal, 2007; 274: 248-248.
7. Mehra, A., **Hong, C.I.**, Shi, M., Loros, J.J., Dunlap, J.C. & Ruoff, P. Circadian rhythmicity by autocatalysis, *PLoS Comput Biol*., 2006; 2: 816-823.
8. Tyson, J.J., **Hong, C.I.**, Thron, D., & Novak, B. A simple model of circadian rhythms based on dimerization and proteolysis of PER and TIM, *Bioph J*, 1999; 77: 2411-2417.
9. **Hong, C.I.** & Tyson, J.J. A proposal for temperature compensation of the circadian rhythm in *Drosophila* based on dimerization of the PER protein, *Chronobiology International*, 1997; 14: 521-529.