
Volunteer Work

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| 2006 & 2007 | Interviewer for pre-med/dent mock interviews |
| 2006-2008 | Science Olympiad State Competition Proctored and Scored Experimental Design event |

Research Interests and Activities at Eastern Washington University

Interests:

Sperm injection
Endangered Species cryobiology
Inducing out-of-season seasonal breeding animals to produce eggs or sperm at any time
Non-lethal sperm and egg collection
Time release hormone delivery
Artificial breeding technologies

Activities:

Micromanipulation
Microsurgical techniques
Microscopy (Hoffman's, Normarski)
Microscope videography
Fluorescent microscopy
Live/dead cell staining
PCR sex determination
Embryo splitting/biopsies
Artificial insemination
Instrumental Insemination of honey bees
Cryobiology (spermatozoa/embryos)
Embryo culture
Sperm collection
Incubation technique
Sperm nuclei isolation
Oviductal flushing

Uterine flushing
Superovulation
Hormonal induction in frogs
Design and construction of micropipettes
Design and construction of novel cryopreservation chambers

Refereed Publications

- Hopkins, B.K. (2008). Factors effecting successful cryopreservation of honey bee (*Apis mellifera*) spermatozoa. M.S. Thesis, Eastern Washington University, Cheney, WA.
- Hopkins B.K., Herr, C. (2008) Cryopreservation of frog (*Rana pipiens*) sperm cells collected by non-lethal methods. *Reproduction, Fertility and Development* 20 (1): 120
- Stucky, M., Hopkins, B.K., and Herr, C. (2008) Cryopreservation of honey bee spermatozoa. *Reproduction, Fertility and Development* 20 (1): 127-128
- Talarico, C., Freiburger, D., Jones, T., Hopkins, B., Herr, C., Koh, M. and Rodriguez-Marek, E. (2008) A Hybrid Approach for Modeling and Assessing Performance of Embedded Systems in a Biologically Critical Application. *15th Annual IEEE International Conference and Workshop on the Engineering of Computer Based Systems: 227-232*
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Presentations

- 2008 Hopkins B.K., Herr, C. Cryopreservation of frog (*Rana pipiens*) sperm cells collected by non-lethal methods. *34th Int'l Embryo Transfer Soc.* (Denver, CO).
- 2008 Stucky, M., Hopkins, B.K., and Herr, C. Cryopreservation of honey bee spermatozoa. *34th Int'l Embryo Transfer Soc.* (Denver, CO).
- 2006 Hopkins, B.K. Isolation of sperm nuclei for intracytoplasmic injection. Eastern Washington University Graduate Symposium (Cheney, WA)
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Grants

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| 2006 | Eastern Washington University Graduate Mini-Grant (\$500) |
| 2007 | Powerful Teaching and Learning Gates MSP Grant (\$800) |
| 2008 | Eastern Washington University Graduate Travel Grant (\$300) |
| 2008 | Microsoft Matching Gifts Foundation (\$1600) |