

Curriculum vitae

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EDUCATION

2008	University of Copenhagen	Ph.D. Biomedical Sciences
2005	MBL, Woods Hole	Neuroscience summer school
2004	University of Oregon	M.S. Neuroscience
2002	University of Copenhagen	M.S. Biophysics
2000	University of Copenhagen	B.S. Biophysics and Physics

POSTDOCTORAL TRAINING

2014 - present	<i>Visiting Instructor</i> Mentor: Dr. Andrew Z Fire Department of Pathology Stanford University Medical School
2008 - 2014	<i>Postdoctoral Fellow</i> Mentor: Dr. Erik M Jorgensen Howard Hughes Medical Institute Department of Biology University of Utah

HONORS and AWARDS

2011	Carlsberg Foundation Postdoctoral Fellowship
2009	Young Investigator of the Year, Medical School, U. Copenhagen
2008	Lundbeck Foundation Postdoctoral Fellowship
2007	Neuroscience Day, Presentation Prize, U. Copenhagen
2004	Fonden af 17.12.1981 Predoctoral Fellowship
2003	American Heart Association Predoctoral Fellowship
2003	Society for Neuroscience, Oregon Chapter, Soma Award

PUBLICATIONS

- Frøkjær-Jensen C**, M Wayne Davis, Mihail Sarov, Jon Taylor, Stephane Flibotte, Matthew LaBella, Andrei Pozniakovski, Donald G Moerman, Erik M Jorgensen. (2014) Random and targeted integration of transgenes in *C. elegans* using a modified Mos1 transposon. *Nature Methods*. 11(5):529-34.
- Frøkjær-Jensen C**, M Wayne Davis, Ailion M and Jorgensen EM. (2012) Improved Mos1-mediated transgenesis in *C. elegans*. *Nature Methods*. 9(2):117-8

3. Lainé V#, **Frøkjær-Jensen C**#, Couchoux H and Jospin M. (2011) The $\alpha 1$ subunit EGL-19, the $\alpha 2/\delta$ subunit UNC-36 and the beta subunit CCB-1 underlie voltage-dependent calcium currents in *C.elegans* striated muscle. *Journal of Chemical Biology*. 286(42):36180-7. #Co-first authors.
4. Zeiser E, **Frøkjær-Jensen C**, Jorgensen E, Ahringer J. MosSCI and gateway compatible plasmid toolkit for constitutive and inducible expression of transgenes in the *C. elegans* germline. *PLoS One*. (2011);6(5):e20082.
5. **Frøkjær-Jensen C**, Davis MW, Hollopeter G, Taylor J, Harris TW, Nix P, Lofgren R, Prestgard-Duke M, Bastiani M, Moerman DG, Jorgensen EM. (2010) Targeted gene deletions in *C. elegans* using transposon excision. *Nature Methods*. 7(6):451-3.
6. **Frøkjær-Jensen C**, Davis MW, Hopkins CE, Newman BJ, Thummel JM, Olesen SP, Grunnet M, Jorgensen EM. (2008) Single-copy insertion of transgenes in *Caenorhabditis elegans*. *Nature Genetics*. 40(11):1375-83.
7. **Frøkjær-Jensen C**, Ailion M, Lockery SR. (2008) Ammonium-acetate is sensed by gustatory and olfactory neurons in *Caenorhabditis elegans*. *PLoS One*. 3(6):e2467.
8. Rasmussen HB, **Frøkjær-Jensen C**, Jensen CS, Jensen HS, Jørgensen NK, Misonou H, Trimmer JS, Olesen SP, Schmitt N. (2007) Requirement of subunit co-assembly and ankyrin-G for M-channel localization at the axon initial segment. *Journal of Cell Science*. 120(Pt 6):953-63.
9. **Frøkjær-Jensen C**, Kindt KS, Kerr RA, Suzuki H, Melnik-Martinez K, Gerstbreih B, Driscoll M, Schafer WR. (2006) Effects of voltage-gated calcium channel subunit genes on calcium influx in cultured *C. elegans* mechanosensory neurons. *Journal of Neurobiology*. 66(10):1125-39.
10. Ortiz CO, Etchberger JF, Posy SL, **Frøkjær-Jensen C**, Lockery S, Honig B, Hobert O. (2006) Searching for neuronal left/right asymmetry: genomewide analysis of nematode receptor-type guanylyl cyclases. *Genetics*. 173(1):131-49.
11. Bianchi L, Gerstbrein B, **Frøkjær-Jensen C**, Royal DC, Mukherjee G, Royal MA, Xue J, Schafer WR, Driscoll M. (2004) The neurotoxic MEC-4(d) DEG/ENaC sodium channel conducts calcium: implications for necrosis initiation. *Nature Neuroscience*. 7(12):1337-44.
12. Chang S, Johnston RJ Jr, **Frøkjær-Jensen C**, Lockery S, Hobert O. (2004) MicroRNAs act sequentially and asymmetrically to control chemosensory laterality in the nematode. *Nature*. 430(7001):785-9.
13. Suzuki H, Kerr R, Bianchi L, **Frøkjær-Jensen C**, Slone D, Xue J, Gerstbrein B, Driscoll M, Schafer WR. (2003) In vivo imaging of *C. elegans* mechanosensory neurons demonstrates a specific role for the MEC-4 channel in the process of gentle touch sensation. *Neuron*. 39(6):1005-17.
14. Grunnet M, Jespersen T, Angelo K, **Frøkjær-Jensen C**, Klaerke DA, Olesen SP, Jensen BS. (2001) Pharmacological modulation of SK3 channels. *Neuropharmacology*. 40(7):879-87.

REVIEWS

1. **Frøkjær-Jensen C**. (2013) Exciting prospects for precise engineering of *Caenorhabditis elegans* genomes with CRISPR/Cas9. *Genetics*. 195(3):635-42.
2. **Frøkjær-Jensen C**, Jorgensen EM. (2009) Calcium: an insignificant thing. *Nature Neuroscience*. 12(10):1213-4

BOOK CHAPTERS

1. **Frøkjær-Jensen C.** (In press, 2014) Transposon Assisted Genetic Engineering with Mos1 mediated single-copy insertion (MosSCI). Book: *C. elegans, Methods and Applications*", Humana Press , eds. Gal Haspel & David Biron.

SCIENTIFIC AND PUBLIC SERVICE

- | | |
|----------------|---|
| 2013 | Grant reviewer French National Infrastructure for Life Sciences |
| 2011 - present | Reviewer for the journals <i>Nature Methods</i> , <i>Genetics</i> , <i>Scientific Reports</i> , <i>Journal of Visual Experiments (JOVE)</i> , and <i>Plos One</i> |
| 2009 - present | Development and maintenance of www.wormbuilder.org with protocols and reagents |
| 2009 - present | Distribution of plasmids (Addgene, >2500 plasmids sent out) and strains (CGC, several top 10 requested strains). |

TEACHING/ SUPERVISION

INDIVIDUAL INSTRUCTION

Undergraduate Researchers

- | | |
|-------------|----------------------------|
| 2011 - 2012 | Tyler Shimko (2011-2012) |
| 2009 - 2010 | Rachel Lofgren (2009-2010) |
| 2008 | Jason Thummel (2008) |
| 2006 - 2007 | Blake Newman (2006-2007) |

Graduate Students

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| 2013 | Julius Fredens |
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Technicians

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| 2012-2014 | Kam Hoe |
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TEACHING ASSISTANTSHIPS (UNIVERSITY OF OREGON)

- | | | |
|------|----------------|---------------------------------|
| 2003 | Bio 132 | Introduction to Animal Behavior |
| 2003 | Bio 360 | Neurobiology |
| 2003 | Bio 133 | Sensation Behavior and Biology |

SELECT INVITED ORAL PRESENTATIONS

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| 2015 | "Introduction to <i>C. elegans</i> ", CRG, Barcelona (accepted invitation) |
| 2014 | "CRISPR and Mos1 technology", European Worm Meeting, Berlin |
| 2013 | "Periodic A/T rich DNA structures promote germline expression", Plenary talk, 19 th International <i>C. elegans</i> meeting, Los Angeles, CA |
| 2011 | "A recombinant Mos1 transposon can carry large DNA fragments", 18 th International <i>C. elegans</i> meeting, Los Angeles, CA |
| 2011 | " <i>C. elegans</i> genome engineering techniques", Keynote, Nordic <i>Caenorhabditis elegans</i> network meeting |
| 2009 | "Using Mos1 elements to modify the genome", 17 th International <i>C. elegans</i> meeting, Los Angeles, CA |
| 2008 | "Single copy insertion of transgenes in <i>C. elegans</i> ", Plenary talk, Neuronal Development and Synaptic function, Madison, WI |
| 2007 | "Single copy transgene insertion", 16 th International <i>C. elegans</i> meeting, Los Angeles, CA |

REFERENCES

Andrew Z Fire, Ph.D

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