CATHERINE A. GORDON
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EDUCATION

Postdoctoral Trainee, Urology, Stanford University, October 2011- present
Research: Role of NuSAP in prostate cancer progression.
Mentor: James Brooks, M.D.

Ph.D., Genetics, University of California, Davis, June 2011
Dissertation: Regulation of *de novo* DNA Methylation by Inactive DNMT3B Splice Variants.
Advisor: Frédéric Chédin, Ph.D.

B.Sc., Biological Sciences, Highest Honors, University of California, Davis, June 2001

LABORATORY SKILLS

Bisulfite sequencing	Cloning	Creation of stable cell lines
DNA methylation assays	DNA purification	Electromobility shift assays
FACS	Immunofluorescence	Immunoprecipitation
Invasion assays	Ion exchange chromatography	Mammalian tissue culture
Mutagenesis	PCR, qPCR, and RT-qPCR	Primer design
Proliferation assays	Protein purification	RNA purification
RNA-Seq	Size exclusion chromatography	Southern and western blots
Transfections	Transformations	Wound healing assays

RESEARCH EXPERIENCE

Postdoctoral Scholar, Dr. James Brooks' Laboratory, Urology Department, Stanford University, Stanford CA (October 2011 - present)

- Validating NuSAP as a prognostic biomarker and potential therapeutic target for aggressive prostate cancer
- Designing, performing, optimizing, and analyzing experiments to determine biological role of NuSAP in prostate cancer progression
- Investigating how NuSAP affects proliferation, invasion, apoptosis, cell cycle progression, cellular movement, tumor growth and metastasis

Graduate Student Researcher, Dr. Frédéric Chédin's Laboratory, Molecular and Cellular Biology Department, University of California, Davis (UC Davis), Davis, CA (March 2006 - June 2011)

- Designed, performed, optimized, and analyzed experiments to functionally characterize human DNMT3B splice isoforms
- Research provides novel mechanism indicating how DNMT3 variants function during development, and how they may contribute to aberrant DNA methylation during cancer

Scientific Technologist (Supervisor), Department of Energy (DOE) Joint Genome Institute (JGI) (Lawrence Livermore National Laboratory), Walnut Creek, CA (August 2004 - August 2005)

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- Increased sequencing output by working nightshift, allowing sequencers to run 24 hours a day
- Supervised technicians, conducted group meetings, and analyzed sequence data

Scientific Technician, DOE JGI (Lawrence Livermore National Laboratory), Walnut Creek, CA (December 2002 - August 2004)

- Consistently received high ratings on performance reviews
- Selected by supervisor to take her place while she was on maternity leave
- Efficiently performed sequencing steps, trained personnel, analyzed sample quality, solved sequencing problems, and revised and wrote protocols

Laboratory Technician, DOE JGI (Onsite), Walnut Creek, CA (June 2002 - December 2002)

- Devised experiments to optimize sequencing read lengths and reduce costs
- Increased monthly sequencing productivity by working additional hours and days

TEACHING EXPERIENCE

Postdoctoral Scholar, Dr. James Brooks' Laboratory, Urology Department, Stanford University, Stanford CA (October 2011 - present)

- Mentored a high school student and laboratory technician
- Developed a summer project for a high school student, trained the high school student, and oversaw the completion of the project

Teaching Assistant, BIS 101, Genes and Gene Expression, Molecular and Cellular Biology Department, UC Davis, Davis, CA (July 2006 - September 2006, March 2009 - June 2009, March 2011 - June 2011)

- Went above-and-beyond as a teaching assistant, which resulted in "Lead TA" designation and additional responsibilities
- Independently instructed weekly BIS101D courses, created lecture presentations, formulated exam questions, held office hours, explained material to students, and evaluated student performance

Teaching Assistant, MCB 162, Human Genetics, Molecular and Cellular Biology Department, UC Davis, Davis, CA (September 2010 - December 2010)

- Led review sessions, held weekly office hours, explained material to students, formulated exam and homework questions, and evaluated student performance

ANIMAL EXPERIENCE

Postdoctoral Scholar, Dr. James Brooks' Laboratory, Urology Department, Stanford University, Stanford CA (October 2011 - present)

- Determining if NuSAP affects metastasis and tumor growth in mice
- **S**ubcutaneously and intravenously injecting human prostate cancer cells into immunodeficient mice, and examining tumor growth and metastasis overtime via bioluminescent imaging

Animal Care Technician, Renovis, Inc. (Kelly Scientific Resources), South San Francisco, CA (February 2002 - May 2002)

- Prepared rats and mice for surgery, administered shots, took blood and urine samples, performed rodent tissue harvests, monitored animal recovery, and performed animal husbandry tasks

Veterinary Assistant, Pinole Pet Hospital, Pinole, CA (June 2000 - September 2000, July 2001 - March 2002)

- Prepared animals for surgeries, assisted with surgeries, administered shots, effectively communicated with clients, and provided a welcoming and professional atmosphere

LEADERSHIP ACTIVITIES

Ambassador, Lane Medical Library, Stanford University, Stanford, CA (June 2013 - present)

- Liason between Lane Medical Library and Urology Department

Member, Teaching Committee, Stanford University Postdoctoral Association (SURPAS), Stanford, CA (April 2013-present)

- Developing teaching opportunities for Postdoctoral Scholars

Member, Leaders in Communication, Stanford University, Stanford, CA (April 2013-present)

- Learning techniques to improve communication

Member, Transportation Committee, SURPAS, Stanford, CA (January 2013 - present)

- Working with postdocs, faculty, and staff to extend transportation benefits to postdocs
- Launched successful petition that gained support of half the postdoctoral community, in addition to Stanford faculty and staff

Organizer, Postdoctoral Coffee Hour series, SURPAS, Stanford, CA (January 2013 - present)

- Established Postdoctoral Coffee Hours to improve opportunities for networking and collaborations among Postdoctoral Scholars

Member, Art Committee, SURPAS, Stanford, CA (January 2013 - present)

- Involved in the organization of the first Postdoctoral Art Exhibit to showcase art abilities of Stanford Postdoctoral Scholars

Co-Chair, SURPAS, Stanford, CA (October 2012 - present)

- Lead SURPAS Council meetings, Officer meetings, SURPAS decisions
- Increasing collaboration opportunities among postdocs and between postdocs and faculty
- Enhancing career development opportunities for postdocs
- Advocating for issues related to Stanford postdocs like postdoctoral childcare and postdoctoral transportation passes
- Analyzed 2012 Postdoctoral Survey to improve the postdoc experience at Stanford

***Ex Officio* Member,** Provost Advisory Committee on Postdoctoral Affairs, Stanford University, Stanford, CA (October 2012 - present)

- Represent postdoctoral voice and SURPAS updates

Council member, SURPAS, Stanford University, Stanford, CA (October 2011 - present)

- Participate in discussions and activities to improve the Stanford postdoctoral experience

Organizer, 3rd Annual Stanford Postdoctoral Research Symposium, SURPAS, Stanford, CA (January 2013 - October 2013)

- Oversaw tasks, recruited volunteers, reviewed submissions, collaborated with postdocs, faculty and staff to devise the program, led meetings and discussions, worked with Event Services to host the event, selected the venue location and speakers, and worked with Stanford Catering to cater the event

Editor-In-Chief, Postdoc Journal (July 2013 - September 2013)

- Oversaw and solicited submissions, oversaw editorial board, reviewed submissions

Postdoctoral Representative, Committee on Academic Computing and Information Systems, Stanford University, Stanford, CA (November 2012 - September 2013)

- Represented postdoctoral voice in this Faculty Senate committee

Judge, 2nd Annual Stanford Postdoctoral Research Symposium, SURPAS, Stanford, CA (Sept 2012)
- Reviewed submissions and ranked candidates to select best oral presentations

Organizer, 2nd Annual Stanford Postdoctoral Research Symposium, SURPAS, Stanford, CA (May 2012 - Sept 2012)
- Helped with the program, website, and registration

Student Host, Genetics Graduate Group, UC Davis, Davis, CA (2006, 2007, 2010, 2011)
- Recruited and interviewed prospective UC Davis Genetics graduate students

Executive Committee Member, Genetics Graduate Group, UC Davis, Davis, CA (2008 - 2009)
- Discussed ways to improve the Genetics Graduate Group, participated in organizing social events for Genetics graduate students, was a point of contact for Genetics graduate students

Representative, Genetics Graduate Group, Graduate Student Association, UC Davis, Davis, CA (2008 2009)
- Represented Genetics Graduate Group at monthly Graduate Student Association meetings, voted as needed during meetings, provided feedback to improve graduate student life

Tour Guide, DOE Joint Genome Institute, Walnut Creek, CA (2005)
- Selected for this position due to demonstrated knowledge and understanding of DNA sequencing
- Led groups of individuals around Production Sequencing Facility, explained DNA sequencing process, provided answers to questions

Workshop Leader, Twelfth Annual San Joaquin County Expanding Your Horizons in Science and Mathematics Conference, University of the Pacific, Stockton, CA (2004)
- Introduced young women, grades 6 through 12, to careers in science

PUBLICATIONS

Gordon CA, Gong X., Gulzar ZG, and Brooks JD. NuSAP is Regulated by the RB1/E2F1 Axis and Modulates Prostate Cancer Progression. In preparation.

Gordon CA. Inactive DNMT Isoforms: Regulators of DNA Methylation during Development and Cancer. Review. In preparation.

Levesque IR, Yan J, **Gordon CA**, de Morrée A. 2013. Mini-grants Mobilize the Stanford Postdoctoral Community. The POSTDOCket, Summer 2013; 11(3), 3-4.

Gordon CA, Hartono SR, Chédin F. 2013. Inactive DNMT3B Splice Variants Modulate *De Novo* DNA Methylation. PLoS One. Jul 19; 8(7): e69486. doi:10.1371/journal.pone.0069486. PMC3716610.

Gordon CA. 2011. Regulation of *de novo* DNA Methylation by Inactive DNMT3B Splice Variants. ProQuest/UMI. June 2011, 294 pages; ID: 11485. UMI number: 3474390.

Wienholz BL, Kareta MS, Moarefi AH, Gordon CA, Ginno PA, Chédin F. 2010. DNMT3L Modulates Significant and Distinct Flanking Sequence Preference for DNA Methylation by DNMT3A and DNMT3B *In Vivo*. PLoS Genet. Sep 9;6(9). pii: e1001106. PMC2936528.

Moarefi AH, **Gordon C,** Chédin, F. 2008. DNM3B Targeted Proteins Database 1, [22392], 10.2970/tpdb.2008.211. Invited review.

ORAL PRESENTATIONS

3rd Annual Stanford Postdoctoral Research Symposium, *Who are you, who are we, and where are we going?* Stanford, CA (October 2013)

Urology Department Noon Research Conference, *Role of NuSAP in Prostate Cancer Progression.* Stanford, CA (March 2013)

Urology Department Research Conference, *What's Nu(SAP) in Prostate Cancer Biomarkers?* Stanford, CA (October 2012)

Genetics Graduate Group Dissertation Exit Seminar, *Regulation of Active DNMT3 Members by Inactive DNMT3B Variants.* Davis, CA (March 2011)

Genetics Graduate Group Student Seminar Series, *A Role for DNMT3B Isoforms in Aberrant DNA Methylation in Cancer.* Davis, CA (February 2009)

POSTER PRESENTATIONS

Third AACR International Conference on Frontiers in Basic Cancer Research, *NuSAP is regulated by RB1 and modulates prostate cancer progression.* National Harbor, MD (September 2013)

Genetics Graduate Group Annual Meeting & Colloquium, *Binding and Regulation of Active DNMT3B Splice Isoforms by Inactive Variants*. Davis, CA (June 2011)

Gordon Research Conference: Cancer Genetics and Epigenetics, *Binding and Regulation of Active DNMT3B Splice Isoforms by Inactive Variants.* Ventura, CA (January 2011)

Genetics Graduate Group Spring Colloquium, *A Role for DNMT3B Splice Isoforms in Aberrant DNA Methylation in Cancer.* Davis, CA (May 2010)

Genetics Graduate Group Recruitment, *A Role for DNMT3B Splice Isoforms in Aberrant DNA Methylation in Cancer.* Davis, CA (February 2009, 2010, 2011)

DNA Methylation Symposium*, A Role for DNMT3B Splice Isoforms in Aberrant DNA Methylation in Cancer.* Sacramento, CA (November 2008)

American Association for Cancer Research Conference: Cancer Epigenetics, A Role for DNMT3B Splice Isoforms in Aberrant DNA Methylation in Cancer. Boston, MA (May 2008)

HONORS

Scholar-in-Training Award: Third AACR International Conference on Frontiers in Basic Cancer Research (2013)

Helena Anna Henzl-Gabor Travel Fellowship (2012)

Best Poster Award at Gordon Research Conference: Cancer Genetics & Epigenetics (2011)

Genetics Work-Study Award (2009-2010)

Genetics Work-Study Award (2008-2009)

UCD & Humanities Graduate Research Award (2008-2009)

UCD & Humanities Graduate Research Award (2007-2008)

George Lee Fellowship in Genetics (2007-2008)

Phi Sigma Honor Society (2007)

Floyd and Mary Schwall Fellowship in Medical Research in Genetics (2005-2008)

Phi Beta Kappa Honor Society (2001)
Golden Key Honor Society (2001)
Phi Kappa Phi Honor Society (2001)

COMPUTER SKILLS

Adobe Acrobat	Adobe Illustrator	Adobe Photoshop	CFlow Sampler
Databases	GraphPad Prism	ImageJ	ImageQuant
IPA	Living Image	Macintosh system	Microsoft Excel
Microsoft Word	Microsoft PowerPoint	PC System	SAM
Vector NTI			

PROFESSIONAL AFFILIATIONS

National Postdoctoral Association (2012 - present)
Association for Women in Science (2012 - present)
Women in Science and Engineering (2012 - present)
American Association for Cancer Research (2008 - present)