

# John Ernest Kratz, PhD

## CONTACT

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## EDUCATION

### COLUMBIA UNIVERSITY

PHD IN BIOLOGICAL SCIENCES  
New York, NY | October 2010

### RICE UNIVERSITY

BA/BFA IN BIOLOGY AND  
PHOTOGRAPHY  
Houston, TX | May 2000

### UCSD EXTENSION

C/C++ PROGRAMMING CERTIFICATE  
San Diego, CA | December 2012

## INTERESTS

Scholarly Communication • Open Access  
• Open Science • Data Publication • Data  
Citation • Data Metrics

## COURSEWORK

### COLUMBIA UNIVERSITY

Channel Structure & Function  
Signal Transduction  
Computational Genomics  
**Teaching Assistant**  
Neurobiology I  
Bioinformatics of Gene Expression

### MOOCS

Introduction to Databases  
Computing for Data Analysis  
Writing in the Sciences

## SKILLS

### Computer & Software

Data Analysis: IPython, Pandas, SciPy •  
Imaging: Adobe Photoshop, ImageJ •  
Sequence Analysis: BLAST, ClustalW, ApE  
• Language/Syntax: C/C++, LaTeX,  
Markdown, Python

### Bench Biology

Microscopy: Confocal, TEM, DIC •  
Biochemistry: Immunohistochemistry,  
Western Blot, BNAGE, in situ Hybridization.  
• Genetics: Classical, RNAi, Behavioral  
Assays.

## EXPERIENCE

### CALIFORNIA DIGITAL LIBRARY | POSTDOCTORAL FELLOW

University of California Curation Center | Oakland, CA | 2013 – present  
Investigate and advise the California Digital Library on data publication.

- **Research:** Investigate data publication in the library, publishing, and research communities; publish a comprehensive review of the present state of data publication; conduct and analyzed online surveys of researchers and data managers.
- **Dissemination:** Presented work at local and international meetings; authored posts for DataPub blog and an associated guide to data citation; revised data management guidance for the DMPTool website.
- **Community engagement:** Attend Research Data Alliance (RDA) plenaries as an RDA/US Fellow; serve on Data Citation Implementation and Data Bibliometrics Working Groups.
- **Current Projects:** **Making Data Count:** an NSF-funded partnership with PLOS and DataONE to define metrics of dataset impact and extend the PLOS Article Level Metric (ALM) tool to capture them; gather requirements via a literature review, focus groups, and an online survey. **Dash:** a Sloan Foundation-funded project to develop a beautiful and easy-to-use dataset repository ingest and discovery application; UX design and usability testing.

### COLUMBIA UNIVERSITY | PHD CANDIDATE

Department of Biological Sciences | New York, NY | 2002 – 2010

**Dissertation:** Prohibitin Homology Domain Proteins in *Caenorhabditis elegans*.

- Applied methods from neurobiology, bioinformatics, and genetics to study the nematode members of an ancient protein family expressed in all cells.
- In collaboration with WormAtlas, characterized the expression and subcellular localization of the complete family. Identified a neuron-specific subfamily.
- Developed confocal microscopy protocol for cell mapping. Established mammalian cell culture system for expression of *C. elegans* proteins. Implemented several behavioral assays.

### JOHNS HOPKINS UNIVERSITY | SENIOR LABORATORY TECHNICIAN

Department of Neuropathology | Baltimore, MD | 2000 - 2002

- Studied role of Wnt signaling pathways in a common pediatric brain tumor.
- Characterized transgenic mouse strains and managed mouse colony.

### SAN DIEGO ZOO | VOLUNTEER

Behavioral Biology Division | San Diego, CA | 2012 - 2013

- Compiled behavioral and ecological data from the literature on species in the San Diego Zoo's collection for an exhaustive database.

## FELLOWSHIPS & AWARDS

Research Data Alliance (RDA)/US Fellowship	2014 - 2015
Best Poster, 4th RDA Plenary Meeting	September 2014
CLIR/DLF Postdoctoral Fellowship in Data Curation	
for the Sciences and Social Sciences	2013 - 2015
National Institutes of Health Training Grant	2005 - 2007
Columbia University Presidential Fellowship	2002 - 2010

## AFFILIATIONS & SERVICE

Future of Research Communication and e-Scholarship	2014 - present
Data Citation Implementation Working Group member	
Research Data Alliance	2014 - present
Data Bibliometrics Working Group member	
National Postdoctoral Association	2013 - present

# John Ernest Kratz, PhD

## PUBLICATIONS

J. Star, E. Castro, M. Crosas, M. Dumontier, R. R. Downs, R. Duerr, L. Haak, M. Haendel, I. Herman, S. Hodson, J. Hourclé, **J. E. Kratz**, Lin J, Nielsen LH, Nurnberger A, Pröll S, Rauber A, Sacchi S, Smith AP, Taylor M, Clark T. **Achieving human and machine accessibility of cited data in scholarly publications.** in submission, PeerJ doi:10.7287/peerj.preprints.697v2

**J. E. Kratz** and C. Strasser, **Researcher perspectives on publication and peer review of data.** in press, PLOS ONE

**J. E. Kratz** and C. Strasser, **Data publication consensus and controversies.** F1000Research 3:94 (2014)  
doi:10.12688/f1000research.4518

E. M. Schurek, J. Tax, L. A. Völker, T. Lamkemeyer, D. Ungrie, **J. E. Kratz**, Y. Tian, K. Kunzelmann, M. Chalfie, B. Schermer, T. Benzing, M. Höhne, **A disease-causing mutation illuminates protein membrane topology of the kidney protein podocin.** Journal of Biological Chemistry 289, 11262-71 (Apr 18, 2014). doi:10.1074/jbc.M113.521773

**J. E. Kratz**, What is the circadian clock? in **The Where, The What & The How: 75 Artists Illustrate the Wondrous Mysteries of the Universe.** Ed. Julia Rothman. Chronicle Books, September 2012.

A. Bounoutas, **J. E. Kratz**, L. Emtage, C. Ma, K. Nguyen, M. Chalfie, **Microtubule depolymerization in C. elegans touch receptor neurons reduces gene expression through a p38 MAPK pathway.** Proceeding of the National Academy of Sciences 108, 3982-3987 (Mar 8, 2011). doi:10.1073/pnas.1101360108

C. G. Eberhart, **J. E. Kratz**, Y. Wang, K. Summers, D. Stearns, K. Cohen, C. V. Dang, P. C. Burger, **Histopathological and molecular prognostic markers in medulloblastoma: c-myc, N-myc, TrkC, and anaplasia.** Journal of Neuropathology & Experimental Neurology 63, 441-9 (May, 2004).

X. Fan, Y. Wang, **J. E. Kratz**, D. J. Brat, Y. Robitaille, A. Moghrabi, E. J. Perlman, C. V. Dang, P. C. Burger, C. G. Eberhart, **hTERT gene amplification and increased mRNA expression in central nervous system embryonal tumors.** American Journal of Pathology 162, 1763-1769 (June, 2003). doi:10.1016/S0002-9440(10)64311-8

**J. E. Kratz**, D. Stearns, D. L. Huso, H. H. Slunt, D. L. Price, D. R. Borchelt, C. G. Eberhart, **Expression of stabilized beta-catenin in differentiated neurons of transgenic mice does not result in tumor formation.** BMC Cancer 2, 33-42 (Dec 2, 2002).  
doi:10.1186/1471-2407-2-33

C. G. Eberhart, **J. E. Kratz**, A. Schuster, P. Goldthwaite, K. J. Cohen, E. J. Perlman, P. C. Burger, **Comparative genomic hybridization detects an increased number of chromosomal alterations in large cell/anaplastic medulloblastomas.** Brain Pathology 12, 36-44 (Jan, 2002). doi:10.1111/j.1750-3639.2002.tb00420.x

## PRESENTATIONS

**J. E. Kratz** and C. Strasser, **Researcher perspectives on publication and peer review of data.** Poster, Future of Research and e-Scholarship Conference 2015. Oxford, UK (January 12, 2015). doi:10.5281/zenodo.13967

**J. E. Kratz** and C. Strasser, **What does "data publication" mean to researchers?** Presentation, Digital Library Federation Forum. Atlanta, Georgia (October 27, 2014). doi:10.5281/zenodo.13969

**J. E. Kratz** and C. Strasser, **Researcher perspectives on publication and peer review of data.** Poster, Research Data Alliance 4th Plenary Meeting. Amsterdam, Netherlands (September 22, 2014). doi:10.5281/zenodo.13967

**J. E. Kratz**, G. Janee, J. Kunze, J. Starr, S. Abrams, C. Strasser, **Metadata publication for datasets through EZID.** Poster, 9th International Digital Curation Conference. San Francisco, California (February 24, 2014). doi:10.5281/zenodo.13968

**J. E. Kratz** and M. Chalfie, **The PHB-domain protein STO-1 is required for sensitive chemotaxis to diacetyl.** Poster, 17th Biennial International C. elegans Conference. Los Angeles, California (June 24, 2009).

**J. E. Kratz**, S. Zhang, T. Benzing, M. Chalfie, **Characterizing the C. elegans PHB domain proteins.** Poster, 16th Biennial International C. elegans Conference. Los Angeles, California (June 27, 2007).

**J. E. Kratz** and M. Chalfie, **A worm identikit for neuron identification.** Poster, 15th Biennial International C. elegans Conference. Los Angeles, California (June 25, 2005).

C. G. Eberhart, **J. E. Kratz**, A. Schuster, E. Gabrielson, E. J. Perlman, P. C. Burger, **Numerous chromosomal alterations and unique gene-expression profiles in large-cell/anaplastic medulloblastomas.** Poster, Mechanisms for Cell Growth and Differentiation. Houston, Texas (Oct 2, 2001).