

## CURRICULUM VITAE

**Name:** Craig Cameron Mello, Ph.D.

**Address:** Howard Hughes Medical Institute  
Program in Molecular Medicine  
University of Massachusetts Medical School  
373 Plantation Street, Suite 219  
Worcester, MA 01605

**Date of Birth:** October 18, 1960, U.S.A.

**Citizenship:** U.S.A.

**Education:** Brown University, 1982, Sc.B. Biochemistry  
University of Colorado, 1982-1984, (Transfer) Developmental Biology  
Harvard University, 1984-1990, Ph.D. Biology  
Fred Hutchinson Cancer Research Center 1990-1994, Postdoctoral Fellowship

**Awards:** Honors in Biochemistry, Brown University 1982  
NIH-NRSA Postdoctoral Award, 1991  
Pew Scholarship in the Biomedical Sciences, 1995  
American Cancer Society Junior Faculty Award, 1995  
March of Dimes, Basil O'Connor Starter Award, 1996  
Howard Hughes Medical Institute, Investigatorship, 2000  
Wiley Prize\* Rockefeller University, 2003  
National Academy of Sciences Molecular Biology Award\*, 2003  
Blais University Chair in Molecular Medicine, 2003  
MGH Warren Triennial Prize\*, 2004  
Lewis S. Rosenstiel Award\*, 2005  
National Academy of Sciences, elected 2005  
Gairdner Foundation International Award\*, 2005  
Massry Prize\*, 2005  
Paul Ehrlich and Ludwig Darmstaedter Prize\*, 2006  
Dr. Paul Janssen Award for Biomedical Research, 2006  
The Nobel Prize in Physiology or Medicine\*, 2006  
American Academy of Arts and Sciences, elected 2008  
American Philosophical Society, elected 2009  
\*corecipient

**Positions:** 2009-present      Co-director  
RNA Therapeutics Institute  
University of Massachusetts Medical School

|              |   |
|--------------|---|
| 2003-present | Professor<br>Howard Hughes Medical Institute, Investigator<br>Program in Molecular Medicine<br>University of Massachusetts Medical School                     |
| 2000 – 2003  | Associate Professor<br>Howard Hughes Medical Institute, Assistant Investigator<br>Program in Molecular Medicine<br>University of Massachusetts Medical School |
| 1994 – 2000  | Assistant Professor<br>Department of Cell Biology<br>University of Massachusetts Medical School   |

### Review Panels and Committee Membership:

- National Institutes of Health:
  - 11/1997 Ad Hoc Member, Biological Sciences 1, Study Section
  - 02/2001 Ad Hoc Member, Cell Development and Function 2
  - 06/2002 Ad Hoc Member, Cell Development and Function 5
  - 02/2003 Ad Hoc Member, Cell Development and Function 2
- 1998/1999 Co-Organizer, International *C. elegans* Meeting
- 1999 Member, NIH Model Organisms Advisory Committee
- 1994-present Ad Hoc Reviewer for scientific journals; Developmental Biology, Development, Genes and Development, Cell, Nature, Science, Embo Journal
- 2005/2006 Co-Organizer, Keystone Symposium on RNAi and Related Pathways
- 2005- Member, National Academy of Sciences
- 2009- Chairman, PEW National Advisory Committee

### Patents:

- 1998, granted dsRNA as a tool for targeted genetic interference  
Co-inventors: Andrew Fire, Ph.D., Craig C. Mello, Ph.D. et al.
- 1999, pending RNAi pathway genes as tools for targeted genetic interference.  
Co-inventors: Craig C. Mello, Ph.D., Andrew Fire, Ph.D. et al.
- 2000, granted Genetic interference via the *in vivo* expression of small hairpin RNAs  
Co-inventors: Philip D. Zamore, Ph.D., Craig C. Mello, Ph.D., et al.

### Scientific Advisory Board Memberships:

- 1995 – 2001 Exelixis, Inc.  
San Francisco, CA
- 2000 – 2011 Divergence Inc.  
Saint Louis, MO
- 2002 – 2004 Sequitur, Inc.  
Natick, MA
- 2004 – 2007 Cytrx Labs  
Worcester, MA

|                |  |
|----------------|--|
| 2004 – 2006    | Invitrogen, Inc.<br>Carlsbad, CA                 |
| 2007 – present | RXi<br>Worcester, MA                             |
| 2009 – present | Grove Instruments Inc.<br>Worcester, MA          |
| 2010 – present | Beeologics<br>Miami, FL                          |
| 2010 – present | Helmsley Foundation<br>New York, NY              |
| 2011 – present | WPI Life Science Advisory Board<br>Worcester, MA |

### **Current Research Projects:**

#### **Investigator**

Howard Hughes Medical Institute

Period: 9/1/00-8/31/2015

#### **RNA Mediated Genetic Interference in *C. elegans***

Principal Investigator: Craig C. Mello

Agency: NIH/GMS Award: R01 GM58800

Period: 1/1/99-3/31/2015

The major goal of this project is to understand the mechanisms that underlie genetic interference caused by RNA injection in *C. elegans*.

### **POSTDOCTORAL PERSONNEL**

#### **Previous Trainees:**

|   |                   |  |
|---|-------------------|--|
| Tae Ho Shin, Ph.D.<br>LSRF Postdoctoral Fellow<br>March, 1995 – Nov. 2000     | Current Position: | Assistant Professor<br>Department of Biology<br>Baylor College of Medicine     |
| Hiroaki Tabara, Ph.D.<br>USPHS Postdoctoral Fellow<br>March 1997 - March 2001 | Current Position: | Assistant Professor<br>Kyoto University<br>Kyoto, Japan                        |
| Martha Soto, Ph.D.<br>ACS Postdoctoral Fellow<br>Sept. 1998 – Dec. 2002       | Current Position: | Assistant Professor<br>Department of Pharmacology<br>Rutgers University        |
| Martin Simard, Ph.D.<br>CIHR Postdoctoral Fellow<br>Feb. 2002 – Dec. 2004     | Current Position: | Assistant Professor<br>Laval Univ. Cancer Research Ctr.<br>Quebec City, Quebec |
| Kuniaki Nakamura<br>Nov. 2000 – Aug. 2005                                     | Current Position: | Research Associate<br>Osaka University<br>Osaka Japan                          |

|   |                   |  |
|---|-------------------|--|
| Thomas Duchaine<br>CIHR Postdoctoral Fellow<br>Oct. 2001 – Sept. 2005               | Current Position: | Assistant Professor<br>McGill University<br>Montreal, Canada                   |
| Lisa Maduzia, Ph.D.<br>NIH NRSA Postdoctoral Fellow<br>Nov. 2002 – Sept. 2006       | Current Position: | Research Associate<br>New England Biolabs                                      |
| KaMing Pang<br>ACS & Charles King Trust<br>Postdoctoral Fellow<br>1999 - Dec 2007   | Current Position: | Research Associate<br>City of Hope   |
| Christopher Trzepacz, Ph.D.<br>NIH NRSA Postdoctoral Fellow<br>July 2000 – May 2008 | Current Position: | Assistant Professor<br>Dept. of Biological Sciences<br>Murray State University |
| Shenghua Duan<br>Postdoctoral Fellow<br>February 2007 – May 2009                    | Current Position: | Computational Biologist<br>Dana Farber Research Institute                      |
| Hiroki Kato<br>Postdoctoral Fellow<br>April 2008 – Aug. 2010                        | Current Position: | Associate Professor<br>Kyoto University  |
| Julie Claycomb<br>LSRF Postdoctoral Fellow  | Current Position: | Assistant Professor<br>University of Toronto<br>Toronto, Ontario               |

**Current Laboratory Associates:**

|   |  |
|---|--|
| Darryl Conte, Ph.D.<br>Research Assistant Professor | Graduate studies completed at:<br>SUNY, Albany, NY                       |
| Donald Gammon<br>CIHR Postdoctoral Fellow           | Graduate studies completed at:<br>University of Alberta                  |
| Weifeng Gu<br>Research Assistant Professor          | Graduate studies completed at:<br>University of Rochester Medical Center |
| Takao Ishidate, Ph.D.<br>Postdoctoral Fellow        | Graduate studies completed at:<br>University of Tokyo, Japan             |
| Heng-Chi Lee<br>Postdoctoral Fellow                 | Graduate studies completed at:<br>Texas Southwestern Medical Center      |

Masaki Shirayama, Ph.D.  
Research Assistant Professor

Graduate studies completed at:  
University of Tokyo, Japan

Sandra Vergara  
Postdoctoral Fellow

Graduate studies completed at:  
Duke University

Hsin-Yue Tsai  
LLS Postdoctoral Fellow

Graduate studies completed at:  
The Ohio State University, OH

Elaine Youngman  
Damon Runyon Postdoctoral Fellow

Graduate studies completed at:  
Johns Hopkins University

## GRADUATE STUDENTS

### Previous Trainees

Christian Rocheleau  
March 1995 - May 2000

Current Position: Assistant Professor  
McGill University

Alla Grishok  
Sept 1997 – Sept 2001

Current Position: Assistant Professor  
Columbia University

Yingdee Unhavaithaya  
Sept. 1998 – Nov. 2003

Current Position: Postdoctoral Associate  
Orr-Weaver Lab  
Whitehead Institute, MIT

Yanxia Bei  
June 1997 – Feb. 2005

Current Position: Postdoctoral Associate  
Carthew Lab  
Northwestern University

Chun-Chieh Chen  
July 2000 – Jan. 2007

Current Position: Postdoctoral Associate  
Reddien Lab  
Whitehead Institute, MIT

Erbay Yigit  
Jan 2001 – March 2007

Current Position: Postdoctoral Associate  
Widom Lab  
Northwestern University

Jessica Vasale  
Sept. 2004 – Sept. 2010

Current Position: Scientist  
Quest Diagnostics

## RECENT INVITED PRESENTATIONS AND SEMINARS

### 2011

Invited Speaker – St. Anselm's College

Invited Speaker – Einstein Lecture, Princeton University and Princeton Chamber of Commerce

**2010**

Speaker – Keystone Symposium “RNA Silencing: Mechanism, Biology and Application”  
Invited Speaker – Enders Lecture, Children’s Hospital, Boston

**2009**

Invited Speaker – Sun Yat-sen University, China  
Invited Speaker – Center for Excellence in Education, Nobel Laureate Reflections, Boston  
Speaker – Keystone Symposium “The Biology of RNA Silencing”  
Invited Speaker – Azores University

**2008**

Invited speaker – UT Southwestern/Bashour Lectureship  
Invited speaker - Moffit Cancer Center Research Institute  
Invited speaker - Wesleyan University  
Invited speaker – PEW Scholars Program in the Biomedical Sciences Annual Meeting  
Invited speaker - MIT HHMI Lecture  
Invited speaker - Harvey Lecture, New York City  
Invited speaker - Imperial College, London  
Invited speaker - Vienna Biocentre, Austria  
Invited speaker – Select Biosciences, RNAi World Congress  
Invited speaker - Northwestern University/Scott Lecture  
Commencement Address – Becker College  
Invited Honoree – Hope Funds for Cancer Research  
Keynote speaker - Harvard Biological and Biomedical Sciences Ph.D. retreat  
Invited speaker - Institute of Molecular Medicine, Lisbon  
Keynote speaker - U56 Cancer Symposium: Dana Farber/Harvard  
Invited speaker - Yomiuri Science Forum, Tokyo  
Invited speaker - Tokyo Women’s Medical University, Tokyo  
Invited speaker - IMCB Symposium, University of Tokyo  
Speaker - Keystone Symposium “RNAi, MicroRNA and Non-Coding RNA”  
Symposium Chair - Paul Janssen Award Symposium  
Keynote speaker - Toll Receptor Meeting, Lisbon  
Invited speaker - GSK R&D  
Invited speaker - RNAi World Congress  
Invited speaker - Janssen Award Scientific Conference  
Keynote speaker - DIA Oligonucleotides-based Therapeutics Conference  
Invited speaker - Gairdner Foundation Awards celebration

**2007**

Keystone Symposium: MicroRNAs and siRNAs: Mechanisms and Biological Functions  
Keynote speaker: Charles River Labs open house  
Invited speaker: Chinese Academy of Sciences  
Invited speaker: The Chinese University of Hong Kong  
Invited speaker: Guangzhou Institute of Biomedicine and Health  
Invited speaker: NIH Director’s Lecture  
Invited speaker: Google  
Invited speaker: Berkeley Graduate Student Lecture Series

Invited participant: testimony at the Science, Technology, and Innovation Subcommittee hearing with “2006 Nobel Laureates”  
Keynote speaker: Pri-Med Midwest Conference and Exhibition, Chicago  
Keynote speaker: Boston Science Superstars at BIO 2007  
Invited participant: Petra III Nobel Laureate conference, Jordan  
Baccalaureate Address: Brown University  
Keynote Speaker: Cell Press Lab Links: Small Silencing RNAs  
Guest of Honor: Academy of Achievement International Achievement Summit  
Invited Participant: Council for the Lindau Nobel Laureate meetings  
Invited speaker: Library of Congress  
Keynote speaker: Drug Discovery and Development of Innovative Therapeutics  
Invited speaker: Marine Biological Laboratory Friday Night Lecture  
Invited speaker: WPI Convocation Lecture in Life Sciences and Bioengineering  
Keynote address: Stars of Science Seminar at Qiagen  
Invited speaker: Plasterk Symposium  
Invited speaker: Neo '07 Barcelona  
Invited speaker: HHMI-NIH Medical Research Scholars  
Invited speaker: Johnson & Johnson Excellence in Science Symposium

## **SERVICE**

### **University**

2010 \_ Presidential Search Committee, University of Massachusetts  
2008 – Tripathy Endowed Lecture, UMass Lowell  
2008 – participation in UMMS delegation visit to Ireland  
2008 – Keynote speaker – STEM Summit V  
2007 – Invited speaker – UMass Uncommon Leadership Program; Presidential Series  
2007 – Participation in Science, Technology, Engineering and Math (STEM) initiative  
2007 – Commencement speaker at UMass Medical School  
2007 – Invited speaker at Harvey Preisler Memorial Symposium; UMass Worcester  
2007 - Keynote speaker at UMass-HHMI Undergraduate Science Research Symposium  
2007 – Keynote address at UMass Graduate School of Nursing 2007 Nursing Excellence Conference  
2007 – Keynote address at the School of Medicine Alumni Reunion Dinner

### **Outreach**

2009 – participation in Nobel Laureate High School Visit Series; visited Holyoke High School  
2007 – Invited speaker, Shrewsbury High School, Science and Technology Department  
2007 – Judge at Shrewsbury High School Science Fair  
2007 – Keynote address at Chamber of Commerce, Boston, Life Sciences Forum  
2007 - Science, Technology and Innovation Subcommittee testimony to Congress by Nobel Laureates  
2007 – invited speaker, Massachusetts Life Science Event, Boston, MA  
2007 – symposium panelist at event to honor the Breast Cancer Research Foundation New England grant recipients

2007 – participation in Commonwealth of Massachusetts Life Science Press Conference  
2007 – participation in Commonwealth's Trade mission Trip to China

## PUBLICATIONS

1. **Mello, C.C.**, Kramer, J. M., Stinchcomb, D., and Ambros, V. (1991). Efficient gene transfer in *C. elegans*: extrachromosomal maintenance and integration of transforming sequences. *EMBO Journal*, *10*, 3959-3970. PMID 1935914; PMC453137
2. **Mello, C.C.**, Draper, B. W., Krause, M., Weintraub, H., Priess, J. R. (1992). The *pie-1* and *mex-1* genes and maternal control of blastomere identity in early *C. elegans* embryos. *Cell* *70*, 163-176. PMID 1623520
3. Bowerman, B., Draper, B. W., **Mello, C.C.**, and Priess, J. R. (1993). The maternal gene *skn-1* encodes a protein that is distributed unequally in early *C. elegans* embryos. *Cell*, *74*, 443-452. PMID 8348611
4. **Mello, C.C.**, Draper, B. W., and Priess, J. R. (1994). The maternal genes *apx-1* and *glp-1* and establishment of dorsal-ventral polarity in the early *C. elegans* embryo. *Cell* *77*, 95-106. PMID8156602
5. Levitan, D., Boyd, L., **Mello, C.C.**, Kemphues, K., and Stinchcomb, D. (1994). *par-2*, a gene required for blastomere asymmetry in *C. elegans*, contains zinc finger and ATP binding motifs. *Proc. Natl. Acad. Sci. USA*. *91*, 6108-6112. PMID 8016123; PMC44147
6. Sibley, M. H., Johnson, J. J. **Mello, C.C.**, and Kramer, J. M. (1994) Genetic identification, sequence, and alternative splicing of the *Caenorhabditis elegans* alpha-2(IV) collagen gene. *J. Cell Biol.*, *123*, (1) 255-264. PMID 7691828
7. **Mello, C.C.**, and Fire, A. (1995). DNA transformation in *C. elegans*. *Methods in Cell Biology* Vol. 48. Diane Shakes and Henry Epstein, editors. p. 451-482.
8. Mickey, K.M., **Mello, C.C.**, Montgomery, M.K., Fire, A., and Priess, J.R. (1996) An inductive interaction in 4-cell stage *C. elegans* embryos involves APX-1 expression in the signaling cell. *Development*. *122*, 1791-1789. PMID 8674418
9. **Mello, C.C.**, Schubert, C., Draper, B.W., Lobel, R., Zhang, W. and Priess, J.R. (1996) The PIE-1 protein and germline specification in *C. elegans* embryos. *Nature*, *382*, 710-712. PMID 8751440
10. Seydoux, G., **Mello, C.C.**, Pettitt, J., Wood, W.B., Priess, J.R. and Fire, A. (1996) Repression of gene expression in the embryonic germ lineage of *C. elegans*. *Nature* *322*, 713-716. PMID 8751441
11. Draper, B. W., **Mello, C.C.**, Bowerman, B., Hardin, J., and Priess, J.R. *Mex-3* is a KH Domain protein that regulates blastomere identity in early *C. elegans* embryos. *Cell* *87*, 205-216. PMID 8861905



12. Watts, J.L., Etemad-Moghadam, B., **Mello, C.C.**, Draper, B.W., Priess, J.R., and Kemphues, K.J. (1996) Par-6, a new gene involved in the establishment of asymmetry in early *C.elegans* embryos acts by mediating the asymmetric localization of PAR-3. *Development* 122 (10), 3133-3140.
13. Rocheleau, C., Bei, Y. Downs, W.D., Lin, R., Wittman, C., Cha, Y.-H., Ali, M., Priess, J.R. and **Mello, C.C.** (1997). Wnt signaling and an APC related gene specify endoderm in early *C. elegans* embryos. *Cell* 90, 707-716. PMID 9288750
14. Kemphues, K. and **Mello, C.** (1997). Antisense RNA injection in *Caenorhabditis elegans*. *Trends in Cell Biology* 7: 462-468.
15. Fire, A., Xu, S., Montgomery, M.K., Kostas, S., Driver, S.E., and **Mello, C.C.** (1998). Potent and specific interference in *C. elegans* mediated by double stranded RNA. *Nature* 391, 806-810. PMID9486653
16. Shi, Y., and **Mello, C.C.** (1998). A p300/CBP homolog specifies multiple differentiation pathways in *Caenorhabditis elegans*. *Genes and Development*, 12(7), 943-955.
17. Tabara, H. Grishok, A. and **Mello C.C.** (1998) Soaking in the genome sequence: RNAi in *C. elegans*. Review Article. *Science* 282, pp430-431. PMID 9841401
18. Tabara, H., Hill, R. J., **Mello, C.C.**, Priess, J. R., and Kohara, Y. (1999) pos-1 encodes a cytoplasmic zinc-finger protein essential for germline specification in *C. elegans*. *Development*;126(1):1-11. PMID 9834181
19. Batchelder, C., Dunn, M. A., Choy, B., Suh, Y., Cassie, C., Shim, E.Y., Shin, T.-H., **Mello, C.C.**, Seydoux, G., Blackwell, T. K. (1999) Transcriptional Repression by the *C. elegans* Germline Protein PIE-1. *Genes and Development* 13(2):202-12. PMID 9925644
20. Rocheleau, C.E., Yasuda, J., Shin, T-H., Lin, R., Sawa, H., Okano, H., Priess, J.R., Davis, R.J., and **Mello, C.C.** (1999). WRM-1 activates the LIT-1 protein kinase to transduce anterior/posterior polarity signals in *C. elegans*. *Cell* 97, 771-726. PMID 10380924
21. Shin, T-H., Yasuda, J., Rocheleau, C.E., Lin, R., Soto, M., Bei, Y., Davis, R.J., and **Mello, C.C.** (1999). MOM-4, a MAP kinase kinase kinase-related protein, activates WRM-1/LIT-1 kinase to transduce anterior/posterior polarity signals in *C. elegans*. *Molecular Cell* 4(2), 275-280. PMID 10488343
22. Tabara, H., Sarkissian, M., Kelly, W.G., Grishok, A., Timmons, L., Fleenor, J., Fire, A., and **Mello, C.C.** (1999). The *rde-1* gene, RNA interference, and transposon silencing in *C. elegans*. *Cell* 99, 123-132. PMID 10535731
23. Grishok, A., Tabara, H., and **Mello, C.C.** (2000) Genetic requirements for the inheritance of RNAi in *C. elegans*. *Science*, 287, 2494-2497. PMID 10741970

24. Parrish, S., Fleenor, J., Xu, S., **Mello, C.C.**, Fire, A. (2000). Functional anatomy of a dsRNA trigger: Differential requirements for the two trigger strands in RNA interference. *Molecular Cell* 6, 1077-1087. PMID 11106747
25. Grishok, A., Pasquinelli, A.E., Conte, D., Li, N., Parrish, S., Baillie, D.L., Fire, A., Ruvkun, G., and **Mello, C.C.** (2001) Genes and mechanisms related to RNA interference regulate expression of the small temporal RNAs that control developmental timing in *Caenorhabditis elegans*. *Cell* 106, 23-34. PMID 11461699
26. Soto, M.C., Qadota, H., Kasuya, K., Inoue, M., Tsuboi, D., **Mello, C.C.**, Kaibuchi, K. (2002). The GEX-2 and GEX-3 proteins are required for tissue morphogenesis and cell migrations in *C. elegans*. *Genes Dev.* 16(5), 620-632. PMID 11877381; PMC155352
27. Grishok, A., and **Mello C.C.** (2002). RNAi. Review Article. *Adv Genet.* 46, 339-360. PMID 11931230
28. Bei, Y., Hogan, J., Berkowitz, L.A., Soto, M., Rocheleau, C.E., Pang, K-M., Collins, J., and **Mello, C.C.** (2002). SRC-1 and Wnt Signaling Act Together to Specify Endoderm and to Control Cleavage Orientation in Early *C. elegans* Embryos. *Developmental Cell* 3, 113-125. PMID 12110172
29. Tabara, H., Yigit, E., Siomi, H., and **Mello, C.C.** (2002) The double stranded RNA binding protein RDE-4 interacts in vivo with RDE-1, DCR-1 and a conserved DExH-box helicase to direct RNA interference in *C. elegans*. *Cell* 109 (7), 861-871. PMID 12110183
30. Unhavaithaya, Y., Shin, T-H., Miliaris, N., Lee, J., Oyama, T., and **Mello, C.C.** (2002) MEP-1 and a homolog of the NURD complex component Mi-2 act together to maintain germline-soma distinctions in *C. elegans*. *Cell* 111, 991-1002. PMID 12507426
31. Shin, T.H., **Mello C.C.** (2003) Chromatin regulation during *C. elegans* germline development. *Current Opinion in Genetics & Development*, 13 (5), 455-462 PMID 14550409
32. Venkatesan, K., McManus, H.R., **Mello, C.C.**, Smith, T.F., Hansen, U. (2003) Functional conservation between members of an ancient duplicated transcription factor family, LSF/Grainyhead. *Nucleic Acids Res.* Aug 1; 31(15): 4304-16. PMID 12888489; PMC169928
33. Timmons L., Tabara, H., **Mello C.C.**, Fire, A.Z. (2003) Inducible systemic RNA silencing in *Caenorhabditis elegans*. *Mol. Biol. Cell.* Jul; 14(7): 2972-83. PMID 12857879; PMC165691
34. Pang, K-M, Ishidate, T., Nakamura, K., Shirayama, M, Trzepacz, C., Schubert, C., Priess, J. and **Mello, C.C.** (2004) The minibrain kinase homolog, *mbk-2*, is required for spindle positioning and asymmetric cell division in early *C. elegans* embryos. *Developmental Biology* 265, 127-139. PMID 14697358
35. Hutvagner, György, Simard, M.J., **Mello C.C.**, and Zamore, P.D. (2004) Sequence-specific inhibition of small RNA function. *PLoS* 3(4), 465-475. PMID 15024405; PMC350664

36. **Mello, C.C.** and Conte, D. Jr. (2004) Revealing the world of RNA interference. *Nature* 431:338-342. PMID 15372040
37. Grigorenko, A.P., Moliaka, Y.K., Soto, M.C., **Mello C.C.**, and Rogaev, E.L. (2004) The *Caenorhabditis elegans* IMPAS gene, *imp-2*, is essential for development and is functionally distinct from related presenilins. *Proc Natl Acad Sci USA* 2004, Oct. 12; 101(41):14955-60. Epub 2004 Oct 06. PMID 15469912; PMC522053
38. **Mello, C.C.** and Czech, M.P. Micromanaging insulin secretion. *Nat Med.* 2004 Dec;10(12):1297-1298. PMID 15580250
39. Tops, B.B., Tabara, H., Sijen, T., Simmer, F., **Mello, C.C.**, Plasterik, R.H., Ketting, R.F. (2005) RDE-2 interacts with MUT-7 to mediate RNA interference in *Caenorhabditis elegans*. *Nucleic Acids Res.* 2005 Jan 13;33(1):347-55. PMID 15653635; PMC546165
40. Chen, C-C.G., Simard, M.J., Tabara, H., Brownell, D.R., McCullough, J.A., **Mello, C.C.** (2005) A member of the polymerase  $\beta$  nucleotidyltransferase superfamily is required for RNA interference in *C. elegans*. *Current Biology* 15(4) 378-383. PMID 15723801
41. Nakamura, K., Kim, S., Ishidate, T., Bei, Y., Pang, K-M, Shirayama, M., Trzepacz, C., Brownell, D.R., **Mello, C.C.** (2005) Wnt signaling drives WRM-1/ $\beta$ -catenin asymmetries in early *C. elegans* embryos. *Genes Dev.* 2005 Aug 1;19(15);1749-54. PMID 16077004; PMC1182335
42. Wang, D., Kennedy, S., Conte Jr., D., Kim, J.K., Gabel, H.W., Kamath, R., **Mello, C.C.**, Ruvkun, G., (2005). Somatic misexpression of germline P granules and enhanced RNA interference in retinoblastoma pathway mutants. *Nature* July 28; 436(7050) 593-7. PMID 16049496
43. Shirayama, M., Soto, M.C., Ishidate, T., Kim, S., Nakamura, K., Bei, Y., van den Heuvel, S., **Mello, C.C.** (2006) The Conserved Kinases CDK-1, GSK-3, KIN-19, and MBK-2 Promote OMA-1 Destruction to Regulate the Oocyte-to-Embryo Transition in *C. elegans*. *Current Biology* Jan 10;16(1):47-55 PMID 16343905
44. Duchaine, T.F., Wohlschlegel, J.A., Kennedy, S., Bei, Y., Conte, D., Pang, K-M., Brownell, D.R., Harding, S., Mitani, S., Ruvkun, G., Yates, J.R. **Mello, C.C.** (2006) Functional proteomics reveals the biochemical niche of *C. elegans* DCR-1 in multiple small-RNA-mediated pathways. *Cell* Jan 27;124(2):343-54. PMID 16439208
45. Yigit, Y., Batista, P.J., Bei, Y., Pang, K-M., Chen, C-C.G., Tolia, N.H., Joshua-Tor, L., Mitani, S., Simard, M.J., **Mello, C.C.** (2006) Analysis of the *C. elegans* Argonaute family reveals that distinct Argonautes Act Sequentially During RNAi. *Cell* 127 November 12, 747-757. PMID 17110334
46. **Mello, C.C.** (2007) Return to the RNAi World: Rethinking Gene Expression and Evolution. (Nobel Lecture) *Angewandte Chemie Int. Ed.* 2007, 46, 6985-6994. PMID 17712806

47. Batista, P.J., Ruby, J.G., Claycomb, J.M., Chiang, R., Fahlgren, N., Kasschau, K.D., Chaves, D.A., Gu, W., Vasale, J.J., Duan, S., Conte, D. Jr., Luo, S., Schroth, G.P., Carrington, J.C., Bartel, D.P., **Mello, C.C.** (2008) PRG-1 and 21U-RNAs Interact to Form the piRNA Complex Required for Fertility in *C. elegans*. *Mol Cell*. 2008 Jul 11;31(1):67-78. PMID 18571452; PMC2570341
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