

## CURRICULUM VITAE

**Name:** Marla J. Berry  
**Office Address:** Pacific Biosciences Research Center  
1993 East West Rd, Rm 215  
Honolulu HI 96822  
**Phone:** 808-956-8838  
**E-mail:** mberry@hawaii.edu

### Education:

1980 BA, Biochemistry/Molecular Biology, Dept. of Biological Sciences, Univ. of California, Santa Barbara, CA  
1986 PhD, Biochemistry/Molecular Biology, Dept. of Biological Sciences, Univ. of California, Santa Barbara, CA

### Post Doctoral Training:

1986-1987 Postdoctoral Scientist, Virus and Cell Biology  
Merck, Sharp and Dohme Research Laboratories, West Point, PA  
1987-1991 Research Associate, Howard Hughes Medical Institute, Brigham and Women's Hospital, Boston, MA  
Research Fellow in Medicine, Harvard Medical School, Brigham and Women's Hospital, Boston, MA

### Academic Appointments:

1991 - 1992 Instructor in Medicine, Harvard Medical School, Boston, MA  
1992 - 2000 Assistant Professor of Medicine, Harvard Medical School, Boston, MA  
1995 - 2000 Adjunct Assistant Professor, Biochem. and Molecular Pharm., Harvard Medical School, Boston, MA  
1998 - 2000 Adjunct Assistant Professor, Department of Nutrition, Harvard School of Public Health, Boston, MA  
2000 – 2002 Associate Professor of Medicine, Harvard Medical School, Boston, MA  
2000 - 2002 Adjunct Associate Professor, Biochem. and Molecular Pharm., Harvard Medical School, Boston, MA  
2000 - 2002 Adjunct Associate Professor, Department of Nutrition, Harvard School of Public Health, Boston, MA  
2002 – 2020 Professor, Cell and Molecular Biology, John A. Burns School of Medicine (JABSOM),  
University of Hawaii at Manoa, Honolulu, HI  
2004 – 2019 Dept. Chair, Cell and Molecular Biology, JABSOM, University of Hawaii at Manoa, Honolulu, HI  
2020 – present Professor and Director, Pacific Biosciences Research Center, School of Ocean and Earth Science and  
Technology, University of Hawaii at Manoa, Honolulu, HI

### Service – University of Hawaii (current and past):

2002 – 2020 CMB Graduate Program Executive committee member  
2003 – present Mentor, University of Hawaii Undergraduate Honors Program  
2004 – 2020 CMB Graduate Program Co-chair (served as chair for 1 year)  
2004 – 2018 INBRE Executive committee  
2004 – 2020 JABSOM Women Faculty Mentoring Committee  
2004 – 2016 JABSOM Masters in Clinical Research Advisory Committee  
2004 – 2020 JABSOM ARCS Scholarship Committee  
2005 – 2020 JABSOM Super Internal Advisory Committee  
2005 – present Mentor, Pacific Research in Diabetes Excellence (PRIDE) Program  
2006 – 2011 JABSOM Special events and awards committee chair  
2007 – present CTAHR Nutrition Graduate Program Admissions Committee  
2008 – 2013 Scientific Advisory Committee for Magnetic Resonance Imaging SNRP  
2008 – 2012 Institute for Biogenesis Research COBRE Internal Advisory Committee  
2008 – 2018 Cardiovascular COBRE Internal Advisory Committee  
2008 – 2020 JABSOM Diversity Group Committee  
2009 – 2014 JABSOM representative to UH Cancer Research Center Executive Committee  
2009 – 2015 Neurosciences task force, Mediator for Mentoring core  
2009 – 2020 JABSOM Promotion and Tenure workshop participant  
2011 – 2012 Cardiovascular Faculty Search Committees  
2012 – 2013 Pathology Dept Chair Search Committee  
2013 – 2014 Surgery Dept Chair Search Committee

**Service – Grant Reviewer (current and past):**

- 1995 - present NIH Study Sections: Nutrition Study Section (1995), NIH Hematology Study Section (1997), NIEHS Study Section (2007), R13 Meeting and Conference grants (2007), NIH RC1 Challenges Grant Program (2009), NIDDK K award and T award training grants (2012), R15 AREA grants (2012), NIMHD G12 Study Section (2013), NIGMS R01 RFA Study Section (2013), NIGMS Clinical and Translational Research (2013),
- 1995 – present Other grant review service: Wellcome Trust, Department of Veterans Affairs, EPSCOR, Israel Science Foundation, Royal Society of New Zealand, Association Francaise contre les Myopathies, Center for Oceans and Human Health, Texas Tech Initiative (2007), National Science Foundation (2008), Medical Research Council (2009, 2017), Science Foundation Ireland (2013)
- 2000 - 2005 NIH Nutrition Study Section, Charter Member, name changed in 2004 to NIH Integrative Nutrition and Metabolic Processes Study Section
- 2007 - 2010 NCRR RCMI Bridging Fund
- 2010 - 2012 NCRR RTRN small grants
- 2014 - 2017 NIMHD U54 RMATRIX Pilot Project Program
- 2017 - 2018 ZRG-EMNR – NIH NIDDK Endocrinology, Metabolism, Nutrition and Reproductive Sciences
- 2018 - present NIDDK F30-31-32 - NIH NIDDK Fellowships in Digestive Diseases and Nutrition

**Service – External committees**

- 1994, 1996 American Thyroid Association Program Committee
- 1994-1995 American Thyroid Association Public Health Committee
- 1996 American Thyroid Association Program Committee
- 1997-1998 American Thyroid Association Research Committee
- 1998-1999 Chair, American Thyroid Association Research Committee
- 1998-present International Advisory Board, International Symposium on Selenium in Biology and Medicine
- 2000-present Organizing Committee, International Symposium on Selenium in Biology and Medicine
- 2011-2016 External Advisory Committee, Chaminade University of Honolulu, Building Research Infrastructure and Capacity (BRIC) Program

**Professional Society Involvement:**

- 1992-present Member, Endocrine Society
- 2008-present Member, American Society for Biochemistry and Molecular Biology
- 2008-present Member, American Society for Nutrition

**Editorial Boards:**

- 1993-1996 Endocrinology
- 2005-2006 Editorial Board, Journal of Biological Chemistry
- 2010-2012 Editorial Board, Journal of Trace Elements in Biology and Medicine

**Ad hoc reviewer:**

Nature, Nature Structure and Molecular Biology, Molec. Cell Biol., EMBO J., J. Mol. Biol., J. Biol. Chem., RNA, Nucleic Acids Research, J. Nutrition, J. Nutritional Biochemistry, Endocrinology, Thyroid, Trends in Genetics, Biotechniques, Biochim Biophys Acta, Mol Cell Biochem, and various other journals

**Awards and Honors:**

- 1980 Leon F. Goodman Scholarship, University of California
- 1980 Mildred Wright Scholarship for Undergraduate Research
- 1993 Women in Endocrinology Award, Endocrine Society
- 1998 Nutrition Emphasis Week Visiting Professor, University of Missouri, Columbia
- 1999 American Thyroid Association Van Meter Prize for outstanding contributions to thyroid research
- 2001 Ruth Pike Lectureship for significant contributions to nutrition research, Pennsylvania State Univ.
- 2004 Mary Shorb Lecturer, University of Maryland
- 2006 Scientist of the Year, Achievement Rewards for College Scientists, Honolulu Chapter

## Research Funding:

NIH Lifetime funding as Principal Investigator is in excess of \$27 million.

NIH Lifetime funding as PI of individual research project grants (R01, R56, R29) is in excess of \$12 million.

## Current

1994-2021	NIH R01-DK47320-24	PI	Mechanism of selenoprotein synthesis in eukaryotes
2017-2021	NIH U54 MD007601-33	Core Director	Ola Hawaii RCMI – Investigator Development Core

## Past

1993-1994	NIH R29-DK045944	PI	Mechanism of selenocysteine incorporation in eukaryotes
1993-1994	Milton Fund	PI	Cotranslational insertion of selenocysteine into proteins
1996-1997	NIH R43-DK051452	subcontr.	Selenocysteine tagging of endocrine proteins
1997-2007	NIH R01-DK052963	PI	Alternative Mechanisms of UGA codon recognition
1998-2002	NIH R01	Co-PI	Physiological role of thyroxine binding proteins
2000-2004	NIH R01	subcontr.	Synthesis of selenium containing proteins
2000-2008	NIH R01-NS040302	PI	Selenoprotein P function and regulation of expression
2006-2011	NIH G12-RR003061	Activity leader	Selective Research Excellence in Biomedicine and Health
2009-2010	NIH R56-DK047320	PI	Mechanism of selenoprotein synthesis in eukaryotes
2007-2012	NIH U54-NS056883	Project co-lead	SNRP - Imaging Studies: Neurotoxicity and Neurodevelopment
2010-2015	NIH R24-DA027318	Co-director	DIDARP
2011-2017	NIH G12 MD007601	PI	RCMI BRIDGES
2004-2018	NIH P20-RR16467	Mentor	INBRE - Hawaii Statewide Research Education Partnership

## Dissertation and Thesis Committees

### Current Trainees: University of Hawaii

#### Graduate Students

##### Chair (2)

Alexandru Sasuclark, PhD student, Cell and Molecular Biology, University of Hawaii

Jessica Nicholson, PhD student, Cell and Molecular Biology, University of Hawaii

##### Committee member (1)

Joseph Avery, PhD student, Cell and Molecular Biology, University of Hawaii

### Postdoctoral Fellows

Daniel Torres (2017 – present)

Naghum Alfulajj (2018 – present)

### Past Trainees: University of Hawaii

#### Graduate Students

##### Chair (12) (10 PhD, 2 MS)

Jeffrey Squires, PhD, Cell and Molecular Biology, University of Hawaii (Chair)

Marci Reeves, PhD, Cell and Molecular Biology, University of Hawaii (Chair)

Christy Gilman, MS, Cell and Molecular Biology, University of Hawaii (Chair)

Lucia Seale, PhD, Cell and Molecular Biology, University of Hawaii (Chair)

Arjun Raman, PhD, Cell and Molecular Biology, University of Hawaii (Chair)

Ali Seyedali, PhD, Cell and Molecular Biology, University of Hawaii (Chair)

China Burns, MS, Cell and Molecular Biology, University of Hawaii (Chair)

Mindy McDermott, PhD, Cell and Molecular Biology, University of Hawaii (Chair)

Ashley Ogawa, PhD, Cell and Molecular Biology, University of Hawaii (Chair)

Penny Kremer, PhD, Cell and Molecular Biology, University of Hawaii (Chair)

Elizabeth Nguyen-Wu, PhD, Cell and Molecular Biology, University of Hawaii (Chair)

Ting Gong, PhD, Molecular Biosciences and Bioengineering, University of Hawaii (Chair)

**Committee member (24)**

Chaonan Ding, PhD, Molecular Biosciences and Bioengineering, University of Hawaii  
Qirui Hu, PhD, Cell and Molecular Biology, University of Hawaii  
Matthew Coussens, PhD, Cell and Molecular Biology, University of Hawaii  
Matthew Pitts, PhD, Cell and Molecular Biology, University of Hawaii  
Yanling Lin, MS, Molecular Biosciences and Bioengineering, University of Hawaii  
Yu Cheng, MS, Molecular Biosciences and Bioengineering, University of Hawaii  
Michelle Jhun, MS, Cell and Molecular Biology, University of Hawaii  
Cheryl Koide, MS, Nutrition, University of Hawaii  
Mindy McDermott, MS, Cell and Molecular Biology, University of Hawaii  
Elizabeth Nguyen-Wu, MS, Cell and Molecular Biology, University of Hawaii  
Xiaosha Pang, PhD, Cell and Molecular Biology, University of Hawaii  
Jason Higa, PhD, Cell and Molecular Biology, University of Hawaii  
Komal Arora, PhD, Cell and Molecular Biology, University of Hawaii  
Stephanie Barayuga, MS, Cell and Molecular Biology, University of Hawaii  
James Lawrence, PhD, Cell and Molecular Biology, University of Hawaii  
Christie Wilcox, PhD, Cell and Molecular Biology, University of Hawaii  
Gregory Fredericks, PhD, Cell and Molecular Biology, University of Hawaii  
Amanda Lee, PhD, Cell and Molecular Biology, University of Hawaii  
Brianna Shimada, PhD, Cell and Molecular Biology, University of Hawaii  
Amanda Reyes, MS, Cell and Molecular Biology, University of Hawaii  
Naghum Alfulaj, PhD, Cell and Molecular Biology, University of Hawaii  
Michael Robles, PhD, Cell and Molecular Biology, University of Hawaii  
Kelly Forest, PhD, Cell and Molecular Biology, University of Hawaii  
Herena Ha, MS student, Cell and Molecular Biology, University of Hawaii  
Silvia Moriano-Gutierrez, PhD, Molecular Biosciences and Bioengineering, University of Hawaii

**Postdoctoral Fellows**

Jun Chen (2002-2007)	Marci Reeves (2011)
Peter Hoffmann (2004-07)	Arjun Raman (2012-2013)
Andrea Small-Howard (2004-06)	Suguru Kurokawa (2012-2014)
Sergi Castellano (2004-05)	Ali Seyedali (2014-2015)
Rick Bellinger (2006-08)	Lucia Seale (2012-2017)
Matthew Pitts (2009-2013)	

**Past Trainees: Harvard Medical School****Graduate Students - Chair (1)**

Glover Martin, PhD, Graduate Program in Biological and Biomedical Sciences (Chair)

**Committee member (3)**

Michael Ettore, PhD, Graduate Program in Biological and Biomedical Sciences  
Elisabeth Nigh, PhD, Graduate Program in Biological and Biomedical Sciences  
Rosa Larralde Rideau, PhD, Graduate Program in Biological and Biomedical Sciences

**Postdoctoral Fellows**

Susan Low (1994-1996)  
Elisabeth Grundner-Culemann (1998-2000)  
Rosa Tujebajeva (1997-2001)  
Nadya Morozova (1999-2002)  
Ann Marie Zavacki (1999-2002)  
John Mansell (2000-2002)  
Zoia Stoytcheva (2001-2007)

### Teaching contributions

My teaching contributions have included courses offered to graduate students through the Biological and Biomedical Sciences graduate program at Harvard Medical School, one course offered to graduate and medical students through Harvard School of Public Health, courses in Cell and Molecular Biology at the John A. Burns School of Medicine, University of Hawaii, a course in the Masters and PhD in Clinical Research Program at the John A. Burns School of Medicine, University of Hawaii, and a mentoring program offered to junior faculty in the health/life sciences throughout UH. My contributions include serving as course director, lecturer, and discussion group leader.

1996 - 2000	BPH 222 - The Science of Human Nutrition Harvard School of Public Health Lecturer, member of teaching faculty
1997 - 1998	BCMP 201 - Biochemistry and Cell Biology Division of Medical Sciences, Harvard Medical School Discussion group leader
1998 - 2001	BCMP 200 - Molecular Biology Division of Medical Sciences, Harvard Medical School Lecturer, member of teaching faculty
1999 - 2001	BCMP 370/Cell Biol 300 - The RNA World Division of Medical Sciences, Harvard Medical School Course organizer and director, lecturer, 1 hr per week, 16 weeks
1999 - 2001	Genetics 330 - Critical Thinking and Research Proposal Writing BBS Graduate Program, Division of Medical Sciences, Harvard Medical School Discussion section leader, member of teaching faculty, 2 hrs per week, 16 weeks
2002 - 2011	CMB 621 – Cell and Molecular Biology Graduate Program in Cell and Molecular Biology, University of Hawaii Lecturer, member of teaching faculty, 4 hrs per semester
2004 - 2011	CMB 626 – Ethics in Biomedical Research Graduate Program in Cell and Molecular Biology, University of Hawaii Course director, lecturer, member of teaching faculty, 2 hrs per week, 16 weeks
2004 - 2011	Grantsmanship and Scientific Writing, Masters and PhD in Clinical Research, Masters and PhD in Biomedical Science Program, JABSOM Lecturer, member of teaching faculty, 2 hrs per semester
2015 - 2018	CMB 654G, Essentials in Grant Writing Graduate Program in Cell and Molecular Biology, University of Hawaii Lecturer, member of teaching faculty, 2 hrs per week, 16 weeks
2019 - 2020	CMB 621 – Cell and Molecular Biology Graduate Program in Cell and Molecular Biology, University of Hawaii Course Director, member of teaching faculty, 4 hrs per week, 16 weeks
2018 – present	Mentoring Bootcamp Ola Hawaii Investigator Development Core, NIH-NIMHD RCMI grant sponsored, Intensive career development course for junior faculty in health/life sciences across UH, Course Director, member of teaching faculty, 24 hrs over 4 weeks

## Publications

1. **Berry MJ**, Samuel CE. Detection of subnanogram amounts of RNA in polyacrylamide gels in the presence and absence of protein by staining with silver. *Anal Bioch* 1982; 124:180-184.
2. **Berry MJ**, Knutson GS, Lasky SR, Munemitsu SM, Samuel CE. Purification and substrate specificities of the double-stranded RNA-dependent protein kinase from untreated and interferon-treated mouse fibroblasts. *J Biol Chem* 1985; 260:11240-11247.
3. **Berry MJ**, Samuel CE. Production and characterization of monoclonal and polyclonal antibodies to the interferon-induced phosphoprotein P1. *Biochem Biophys Res Comm* 1985; 133:168-175.
4. Samuel CE, Knutson GS, **Berry MJ**, Atwater JA, Lasky SR. Purification of double-stranded RNA-dependent protein kinase from mouse fibroblasts. *Meth Enzymol* 1986; 119:499-516.
5. Broni B, Julkunen I, Condra JH, Davies ME, **Berry MJ**, Krug RM. Parental influenza virion nucleocapsids are efficiently transported into the nuclei of cells expressing the nuclear interferon-induced Mx protein. *J Virol* 1990; 64:6335-6340. PMC248816
6. **Berry MJ**, Kates AL, Larsen PR. Thyroid hormone regulates type I deiodinase messenger RNA in rat liver. *Mol Endocrinol* 1990; 4:743-748.
7. **Berry MJ**, Banu L, Larsen PR. Type I iodothyronine deiodinase is a selenocysteine-containing enzyme. *Nature* 1991; 349:438-440.
8. **Berry MJ**, Kieffer JD, Larsen PR. Evidence that cysteine, not selenocysteine, is in the catalytic site of type II deiodinase. *Endo* 1991; 129:550-552.
9. **Berry MJ**, Kieffer JD, Harney JW, Larsen PR. Selenocysteine confers the biochemical properties characteristic of the Type I iodothyronine deiodinase. *J Biol Chem* 1991; 266:14155-14158.
10. **Berry MJ**, Banu L, Chen Y, Mandel SJ, Kieffer JD, Harney JW, Larsen PR. Recognition of UGA as a selenocysteine codon in type I deiodinase requires sequences in the 3' untranslated region. *Nature* 1991; 353:273-276.
11. Mandel SJ, **Berry MJ**, Kieffer JD, Harney JW, Warne RL, Larsen PR. Cloning and in vitro expression of the human selenoprotein, type I iodothyronine deiodinase. *J Clin Endo Metab* 1992; 75:1133-1139.
12. **Berry MJ**. Identification of essential histidine residues in rat type I iodothyronine deiodinase. *J Biol Chem* 1992; 267:18055-18059.
13. **Berry MJ**, Maia AL, Kieffer JD, Larsen PR. Substitution of cysteine for selenocysteine in type I iodothyronine deiodinase reduces the catalytic efficiency of the protein but enhances its translation. *Endo* 1992; 31:1848-1852.
14. **Berry MJ**, Larsen PR. The molecular cloning of type I iodothyronine deiodinase: new insights into thyroid hormone action. *Thyroid Today* 14:1-9, 1992.
15. **Berry MJ**, Larsen PR. The role of selenium in thyroid hormone action. *Endocrine Reviews* 13:207-219, 1992.
16. Lee WS, **Berry MJ**, Hediger MA, Larsen PR. The type I iodothyronine 5' deiodinase mRNA is localized to the S3 segment of the rat kidney proximal tubule. *Endo* 1993; 132:2136-2140.
17. **Berry MJ**, Banu L, Harney JW, Larsen PR. Functional characterization of the eukaryotic SECIS elements which direct selenocysteine insertion at UGA codons. *EMBO* 1993;12:3315-3322. PMC413599
18. **Berry MJ**, Greico D, Taylor BA, Maia AL, Kieffer JD, Beamer W, Glover E, Poland A, Larsen PR. Physiological and genetic analyses of inbred mouse strains with a Type I iodothyronine deiodinase deficiency. *J Clin Invest* 1993; 92:1517-1528. PMC288298
19. **Berry MJ**, Larsen PR. Molecular cloning of the selenocysteine-containing enzyme type I iodothyronine deiodinase. *Amer J Clin Nutr* 57:249S-255S, 1993.
20. **Berry MJ**, Larsen PR. Recognition of UGA as a selenocysteine codon in eukaryotes: a review of recent progress. *Biochem Soc Trans* 21:827-832, 1993.
21. Moreno M, **Berry MJ**, Horst C, Goglia F, Harney JW, Larsen PR, Visser TJ. Activation and inactivation of thyroid hormone by type I iodothyronine deiodinase. *FEBS Lett* 1994; 344:143-146.
22. Toyoda N, Harney JW, **Berry MJ**, Larsen PR. Identification of critical amino acids for 3,5',3'-triiodothyronine deiodination by human type I deiodinase based on comparative functional-structural analyses of the human, dog, and rat enzymes. *J Biol Chem* 1994; 269:20329-20334.
23. **Berry MJ**, Harney JW, Ohama T, Hatfield DL. Selenocysteine insertion or termination: factors affecting UGA codon fate and complementary anticodon:codon mutations. *Nucleic Acids Res* 1994;22:3753-3759. PMC308358

24. **Berry MJ**, Larsen PR. Type I iodothyronine deiodinase. In: Thyroid Hormone Metabolism: Molecular Biology and Alternate Pathways. CRC Press, Boca Raton, FL, S-y Wu and TJ Visser, eds. pp. 1-22, 1994.
25. Larsen PR, **Berry MJ**. Type I iodothyronine deiodinase: unexpected complexities in a simple deiodination reaction. *Thyroid* 4:357-362, 1994.
26. **Berry MJ**, Larsen PR. Selenocysteine and the structure, function, and regulation of iodothyronine deiodination: Update 1994. *Endocrine Reviews Monographs* 3:265-269, 1994.
27. McCaughan KK, Brown CM, Dalphin ME, **Berry MJ**, Tate WP. The efficiency of translational termination in mammals is determined by the base following the stop codon. *Proc Natl Acad Sci USA* 1995; 92:5431-5435. PMC41708
28. Toyoda N, **Berry MJ**, Harney JW, Larsen PR. Topological analysis of the integral membrane protein, type I deiodinase (DIO 1). *J Biol Chem* 1995; 270: 12310-12318.
29. Maia AL, **Berry MJ**, Sabbag R, Harney JW, Larsen PR. Structural and functional differences in the Dio1 gene in mice with inherited type 1 deiodinase deficiency. *Mol Endo*1995;9:969-980.
30. Low SC, Harney JW, **Berry MJ**. Cloning and functional characterization of human selenophosphate synthetase, an essential component of selenoprotein synthesis. *J Biol Chem* 1995; 270:21659-21664.
31. Salvatore D, Low SC, **Berry MJ**, Maia AL, Harney JW, Croteau W, St. Germain DL, Larsen PR. Type 3 iodothyronine deiodinase: cloning; in vitro expression, functional analysis of the placental selenoenzyme. *J Clin Invest* 1995; 96:2421-2430.
32. Larsen PR, **Berry MJ**. Nutritional and hormonal regulation of thyroid hormone deiodinases. *Ann Rev Nutr.* 15:323-352, 1995.
33. Martin GW, Harney JW, **Berry MJ**. Selenocysteine incorporation in eukaryotes: Insights into mechanism and efficiency from sequence, structure and spacing proximity studies of the type 1 deiodinase SECIS element. *RNA* 1996; 2:171-182. PMC1369361
34. Arnault F, Etienne J, Noe L, Raisonnier A, Brault D, Harney JW, **Berry MJ**, Tse C, Fromental-Ramain C, Hamelin J, Galibert F. Human lipoprotein lipase last exon is not translated, in contrast to lower vertebrates. *J Mol Evol* 1996; 43:109-115
35. Low SC, **Berry MJ**. Knowing when not to stop: selenocysteine incorporation in eukaryotes. *Trends Biochem.* 21:203-208, 1996.
36. **Berry MJ**, Martin GW, Low SC. Selenium and iodothyronine deiodination. *Proceedings of the 6th Thyroid Symposium, Graz, Austria, 13-17, 1996.*
37. Toyoda N, Kaptein E, **Berry MJ**, Harney JW, Larsen PR, Visser TJ. Structure-Activity relationships for thyroid hormone deiodination by mammalian type I iodothyronine deiodinases. *Endocrinology* 1997; 138:213-219.
38. Sun B, Harney J, **Berry M**, Larsen PR. The role of the active site cysteine in catalysis by type 1 iodothyronine deiodinase. *Endocrinology* 1997; 138:5452-5458.
39. **Berry MJ**, Martin GW, Low SC. RNA and protein requirements for eukaryotic selenoprotein synthesis. *Biomed. and Environ. Sci.* 10: 182-189, 1997.
40. Shisler JL, Senkevich TG, **Berry MJ**, Moss B. Selenoprotein from a human dermatotropic poxvirus blocks UV-induced cell death. *Science* 1998; 279:102-105.
41. Martin GW, Harney JW, **Berry MJ**. Functionality of mutations at conserved nucleotides in eukaryotic SECIS elements. *RNA* 1998; 4:65-73. PMC1369597
42. Martin GW, **Berry MJ**. Eukaryotic selenocysteine incorporation: mechanistic insights. Phosphorus, Sulfur, and Silicon, and the Related elements 136-138: 309-320, 1998.
43. Gadaska PY, Berggren MM, **Berry MJ**, Powis G. Cloning, sequencing and functional expression of a novel human thioredoxin reductase. *FEBS Lett* 1999; 442: 105-111.
44. Prabakaran D, Ahima RS, Harney JW, **Berry MJ**, Larsen PR, Arvan P. Polarized targeting of thyroid epithelial cell proteins in thyrocytes and MDCK cells. *J Cell Science* 1999; 112:1247-1256.
45. Grundner-Culemann E, Martin GW, Harney JW, **Berry MJ**. Two distinct structures capable of directing selenocysteine incorporation in eukaryotes. *RNA* 1999; 5:625-635. PMC1369790
46. Buettner C, Harney JW, **Berry MJ**. The *Caenorhabditis elegans* homologue of thioredoxin reductase contains a selenocysteine insertion sequence element that differs from mammalian SECIS elements but directs selenocysteine incorporation. *J Biol Chem* 1999; 274:21598-21602.
47. Alsina B, Corominas M, **Berry M**, Baguna J, Serras F. Disruption of selenoprotein biosynthesis affects cell proliferation in the imaginal discs and brain of *Drosophila melanogaster*. *J Cell Science* 1999; 112:2875-84.

48. Gasdaska JR, Harney JW, Gasdaska PY, Powis G, **Berry MJ**. Regulation of human thioredoxin reductase expression and activity by 3' untranslated region SECIS and mRNA instability elements. *J Biol Chem* 1999; 274:25379-25385.
49. Tujebajeva RM, Harney JW, **Berry MJ**. Selenoprotein P expression, purification, and immunochemical characterization. *J Biol Chem* 2000; 275:6288-629437.
50. Tujebajeva RM, Copeland PR, Xu XM, Carlson BA, Harney JW, Driscoll DM, Hatfield DL, **Berry MJ**. Decoding apparatus for eukaryotic selenocysteine insertion. *EMBO Reports* 2000; 1, 158-163. PMC1084265
51. Warner GW, **Berry MJ**, Moustafa ME, Carlson BA, Hatfield DL, Faust JR. Inhibition of Selenoprotein Synthesis by Selenocysteine tRNA<sup>[Ser]Sec</sup> Lacking Isopentenyladenosine. *J Biol Chem* 2000; 275, 28110-28119.
52. Tujebajeva RM, Ransom DG, Harney JW, **Berry MJ**. Expression and characterization of the first non-mammalian selenoprotein P in the zebrafish, *Danio rerio*. *Genes to Cells* 2000; 5, 897-903.
53. Kumaraswamy E, Malykh A, Korotkov KV, Kozyavkin S, Hu Y, Kwon SY, Moustafa ME, Carlson BA, **Berry MJ**, Lee BJ, Hatfield DL, Diamond AM and Gladyshev VN. Structure-expression relationships of the 15 kDa selenoprotein gene: possible role of the protein in cancer etiology. *J Biol Chem* 2000; 275, 35540-35547.
54. Low SC, Grundner-Culemann E, Harney JW, **Berry MJ**. SECIS-SBP2 interactions dictate selenocysteine incorporation efficiency and selenoprotein hierarchy. *EMBO Journal* 2000; 19, 6882-6890. PMC305907
55. **Berry MJ**. Recoding UGA as Selenocysteine. In: *Translational Control*. Vol. 2. Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, JWB Hershey, MB Mathews, N Sonenberg, eds. pp. 763-83, 2000.
56. Martin GW, **Berry MJ**. Selenocysteine codons decrease polysome association on endogenous selenoprotein mRNAs. *Genes to Cells* 2001; 6, 121-129.
57. Bianco AC, **Berry MJ**. Iodine Landmark paper: Pituitary Nuclear 3,5,3'-Triiodothyronine and Thyrotropin Secretion: An Explanation for the Effect of Thyroxine. *J. Trace Elements in Exp. Med.* 2001; 14, 255-259.
58. Moustafa ME, Carlson BA, El-Saadani MA, Kryukov GV, Sun QA, Harney JW, Hill KA, Burk RF, Combs GF, Feigenbaum L, Mansur DB, **Berry MJ**, Diamond AM, Gladyshev VN, Lee BJ, Hatfield DL. Selective inhibition of selenocysteine tRNA maturation and selenoprotein synthesis in transgenic mice expression isopentenyladenosine mutant selenocysteine tRNA<sup>[Ser]Sec</sup> transgenes. *Mol. Cell Biol.* 2001; 21, 3840-3852. PMC87048
59. Castellano S, Morozova N, Morey M, **Berry M**, Serras F, Corominas M, Guigó Roderic. *In silico* identification of novel selenoproteins in the *Drosophila melanogaster* genome. *EMBO R* 2001; 2, 697-702. PMC1083988
60. Grundner-Culemann E, Martin GW, Tujebajeva RM, Harney JW, **Berry MJ**. Interplay between termination and translation machinery in eukaryotic selenoprotein synthesis. *J. Mol. Biol.* 2001; 310, 699-708.
61. **Berry MJ**, Tujebajeva RM, Copeland PR, Xu XM, Carlson BA, Martin GW, Low SC, Mansell JB, Grundner-Culemann E, Harney JW, Driscoll DM, Hatfield DL. Selenocysteine incorporation directed from the 3'UTR: characterization of eukaryotic EFsec and mechanistic implications. *BioFactors* 14: 17-24, 2001.
62. Mansell JB and **Berry MJ**. Towards a mechanism for selenocysteine incorporation in eukaryotes. In: *Selenium: its Molecular Biology and Role in Human Health*. Kluwer Academic Publishers. DL Hatfield, ed. Pp. 69-80, 2001.
63. Martin III GW and **Berry MJ**. SECIS Elements. In: *Selenium: its Molecular Biology and Role in Human Health*. Kluwer Academic Publishers. DL Hatfield, ed. pp. 45-53, 2001.
64. Xu XM, Carlson BA, Grimm TA, Kutza J, **Berry MJ**, Arreola R, Fields KH, Shanmugam I, Jeang KT, Oroszlan S, Combs GF, Clouse KA, Marx PA, Gladyshev VN, Hatfield DL. Rhesus monkey Simian Immunodeficiency Virus Infection as a Model for Assessing the Role of Selenium in Aids. *Journal of Acquired Immune Deficiency Syndromes* 2002; 31, 453-463.
65. **Berry MJ**, Martin GW, Tujebajeva RM, Grundner-Culemann E, Mansell JB, Morozova N and Harney JW. SECIS element characterization and selenoprotein expression. In: *Methods Enzymol.* Vol. 347. Academic Press. H Sies, L Packer, eds. pp. 17-24, 2002.
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