

CURRICULUM VITAE

John A. Putkey

Professor and vice Chairman
Departments of Biochemistry & Molecular Biology and Internal Medicine

The University of Texas-Houston Medical School
6431 Fannin, Houston, TX 77030

(713) 500-6061 Office; (713) 500-6062 Lab; (713) 500-0652 Fax

John.Putkey@uth.tmc.edu

<http://www-bmb.med.uth.tmc.edu/programfac/Putkey/Putkey.html>

Birth Date April 14, 1954
Citizenship USA
Marital status Widower, two children

Education

1976 BA, Biochemistry, University of California, Berkeley
1982 Ph.D., Biochemistry, University of California, Riverside. Advisor: Professor A.W. Norman
1982-85 Postdoctoral Fellow, Department of Cell Biology Baylor College of Medicine, Houston, Texas. Advisor: Professor A.R. Means

Academic Appointments

1985-86 Research Instructor, Department of Cell Biology, Baylor College of Medicine, Houston, Texas
1986-92 Assistant Professor, Department of Biochemistry and Molecular Biology, The University of Texas Houston, Medical School
1987- Graduate Faculty, University of Texas Houston, Graduate School of Biomedical Sciences.
1989-00 Assistant Professor, Department of Internal Medicine, The University of Texas Houston, Medical School
1992-99 Associate Professor, Departments of Biochemistry and Molecular Biology, and Internal Medicine, University of Texas Houston, Medical School
1998-00 Director, Graduate Program in Biochemistry and Molecular Biology, University of Texas Houston, Medical School
1999-03 Associate Director Structural Biology Research Center, University of Texas Houston, Medical School
1999- Professor, Department of Biochemistry and Molecular Biology, University of Texas Houston, Medical School
2017- Vice Chairman, Department of Biochemistry and Molecular Biology, University of Texas Houston, Medical School

Institutional Program Affiliations

Program in Biochemistry and Molecular Biology
Program in Biochemistry and Cell Biology

Houston Area Molecular Biophysics Program

Awards and Honors

- 2016 Deans Teaching Excellence Award UT-Houston Medical School
- 2015 Deans Teaching Excellence Award UT-Houston Medical School
- 2014 Deans Teaching Excellence Award UT-Houston Medical School
- 2013 Deans Teaching Excellence Award UT-Houston Medical School
- 2012 Deans Teaching Excellence Award UT-Houston Medical School
- 2011 Deans Teaching Excellence Award UT-Houston Medical School
- 2010 Deans Teaching Excellence Award UT-Houston Medical School
- 2008 Re-appointed with Commendation to the Graduate Faculty of Biomedical Sciences
- 2008 Deans Teaching Excellence Award UT-Houston Medical School
- 2003 UT-Houston Health Science Center Honors Convocation Recipient
- 2002 Re-appointed with Commendation to the Graduate Faculty of Biomedical Sciences
- 2001 UT-Houston Health Science Center Honors Convocation Recipient
- 2001 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 2000 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1999 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1998 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1998 Co-chairman, mini-symposium on Tropomyosin-Troponin Interactions, Biophysical Society
- 1997 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1996 Reappointed with Highest Commendation to the Graduate Faculty of Biomedical Sciences
- 1996 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1995 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1994 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1993 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1992 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1992 Co-chairman, mini-symposium on Tropomyosin-Troponin Interactions, Biophysical Society
- 1991 Discussion leader at the Gordon Conference on Excitation-Contraction Coupling
- 1991 Re-appointed with Commendation to the Graduate Faculty of Biomedical Sciences
- 1991 Re-appointed with Commendation to the Graduate Faculty of Biomedical Sciences
- 1991 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1990 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1989 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1988 Dean's Teaching Excellence Award Graduate School of Biomedical Sciences
- 1988 Established Investigator American Heart Association (declined to accept RCDA)
- 1988 NIH Research Career Development Award
- 1983 Olive V. Levin Postdoctoral Fellowship from the Damon Runyon-Walter Winchell Cancer Fund
- 1980 Recipient National Institute of Nutrition Graduate Student Research Award (1980)
- 1979 Finalist National Institute of Nutrition Graduate Student Research

Research Review and Advisory Panels

- 1987 NIH ad hoc site visit committee member
- 1988-92 Review Panel Texas Affiliate of the American Heart Association
- 1991 NIH ad hoc site visit committee member
- 1994-98 Research Allocation and Advisory Committee (RAAC), American Heart Association Texas Affiliate
- 1999 Grant Review Panel American Heart Association Western States Affiliate

Editorial Boards and Journal Reviewer

Editorial Board The Journal of Biological Chemistry (2006-2011)
Editorial Board The Journal of Biological Chemistry (1995-2000)
Editorial Board The Journal of Biological Chemistry (1989-1994)
Biochemistry (reviewer)
Journal of Biochemistry (reviewer)
Cell Calcium (reviewer)
FEBS Letters (reviewer)
Biophysical Journal (reviewer)
Analytical Biochemistry (reviewer)
Nature (reviewer)
Nature Structural and Cellular Biology (reviewer)

Scientific Societies

American Association for the Advancement of Science
American Society for Biochemistry and Molecular Biology
American Biophysical Society

Medical School and Graduate School Committees

2014-17	Faculty Appointment Promotion and Tenure Committee, Medical School
2017-17	Ad hoc Promotion and Tenure Committee (Chair), Medical School
2012-13	Ad hoc Promotion and Tenure Committee, Medical School
2012-14	Graduate School Student Scholarship Committee, Graduate School
2011-12	Co-Chair Admissions Committee, Graduate School
2010-11	Admissions Committee, Graduate School
2008-10	Faculty Senate, Medical School
2002-03	Faculty Development Leave Committee, Medical School
2003-02	Ad hoc Promotion and Tenure Committee, Medical School
2001-02	Ad hoc Promotion and Tenure Committee, Medical School
2001-03	HIPPA Compliance Steering Committee, Medical School
1999-00	Chair Program Coordinating Committee, Graduate School
1999-00	Program Executive Committee, Graduate School
1998-99	Program Coordinating Committee, Graduate School
1998-99	Graduate Education Council, University of Texas Houston
1998-99	MD/PhD Committee, Graduate School
1995-98	Membership Committee, Graduate School
1992-95	Admission Committee, Graduate School
1993-95	Faculty Senate, Medical School
1988-96	Recombinant DNA, Medical School

Inter Institutional Committees

1999-	Executive Committee Gulf Coast Consortium for Magnetic Resonance
1997-	Steering Committee Houston Area Molecular Biophysics Program

Departmental Committees

2017-	BCB Program Curriculum Committee
2015-2016	Chair BMB Faculty Search Committee
2012-17	BMB Graduate Program Education Committee
2011-12	BMB Graduate Program Admissions Committee
2010-11	BMB Graduate Program Examination Committee
2005-07	BMB Graduate Program Steering Committee

2005-06 Search Committee, BMB Department Management Officer
 2001-02 Co-Chair, Structural Biology Focus Group
 1998-99 Search Committee, Director Structural Biology Center
 1998-00 Chair BMB Graduate Program Steering Committee
 1998-00 Director BMB Graduate Program
 1997-98 Faculty Search Committee, Department of Biochemistry and Molecular Biology

Medical School Course Participation

Year	Term	Title	Role
2017	Fall	Foundations in Medical Science	Lecturer
2017	Summer	Medical School Pre-Entry Program	Lecturer
2016	Fall	Foundations in Medical Science	Lecturer
2016	Summer	Medical School Pre-Entry Program	Lecturer
2015	Fall	Medical School Biochemistry	Lecturer
2015	Fall	Medical School Biochemistry	Discussion Leader
2016	Summer	Medical School Pre-Entry Program	Lecturer
2014	Fall	Medical School Biochemistry	Lecturer
2014	Fall	Medical School Biochemistry	Discussion Leader
2013	Summer	Medical School Pre-Entry Program	Lecturer
2013	Fall	Medical School Biochemistry	Lecturer
2013	Fall	Medical School Biochemistry	Discussion Leader
2013	Summer	Medical School Pre-Entry Program	Lecturer
2012	Fall	Medical School Biochemistry	Lecturer
2012	Fall	Medical School Biochemistry	Discussion Leader
2011	Fall	Medical School Biochemistry	Lecturer
2011	Fall	Medical School Biochemistry	Discussion Leader
2010	Fall	Medical School Biochemistry	Lecturer
2010	Fall	Medical School Biochemistry	Discussion Leader
2009	Fall	Medical School Biochemistry	Lecturer
2009	Fall	Medical School Biochemistry	Discussion Leader
2008	Fall	Medical School Biochemistry	Lecturer
2008	Fall	Medical School Biochemistry	Discussion Leader
2007	Fall	Medical School Biochemistry	Lecturer
2007	Fall	Medical School Biochemistry	Discussion Leader
2006	Fall	Medical School Biochemistry	Lecturer
2006	Fall	Medical School Biochemistry	Discussion Leader
2005	Fall	Medical School Biochemistry	Lecturer
2005	Fall	Medical School Biochemistry	Discussion Leader
2004	Fall	Medical School Biochemistry	Lecturer
2004	Fall	Medical School Biochemistry	Discussion Leader
2003	Fall	Medical School Biochemistry	Lecturer
2003	Fall	Medical School Biochemistry	Discussion Leader
2002	Fall	Medical School Biochemistry	Lecturer
2002	Fall	Medical School Biochemistry	Discussion Leader
2001	Fall	Medical School Biochemistry	Lecturer
2001	Fall	Medical School Biochemistry	Discussion Leader
2000	Fall	Medical School Biochemistry	Lecturer
2000	Fall	Medical School Biochemistry	Discussion Leader
1999	Fall	Medical School Biochemistry	Lecturer
1999	Fall	Medical School Biochemistry	Discussion Leader
1998	Fall	Medical School Biochemistry	Lecturer
1997	Fall	Medical School Biochemistry	Lecturer
1996	Fall	Medical School Biochemistry	Lecturer
1995	Fall	Medical School Biochemistry	Lecturer
1994	Fall	Medical School Biochemistry	Lecturer
1993	Fall	Medical School Biochemistry	Lecturer

1992	Fall	Medical School Biochemistry	Lecturer
1991	Fall	Medical School Biochemistry	Lecturer
1990	Fall	Medical School Biochemistry	Lecturer
1989	Fall	Medical School Biochemistry	Lecturer
1988	Fall	Medical School Biochemistry	Lecturer

Graduate School Course Participation

Year	Term	Title	Role
2017	Spring	Current Methods in Structural and Mol. Biol.	Director/Lecturer
2016	Spring	Current Methods in Structural and Mol. Biol.	Lecturer
2015	Spring	Current Methods in Structural and Mol. Biol.	Director/Lecturer
2014	Spring	Current Methods in Molecular Research II	Director/Lecturer
2013	Spring	Current Methods in Molecular Research II	Director/Lecturer
2012	Fall	Metabolic Biochemistry	Director
2012	Spring	Current Methods in Molecular Research II	Director/Lecturer
2011	Fall	Metabolic Biochemistry	Director/Lecturer
2011	Spring	Current Methods in Molecular Research II	Director/Lecturer
2010	Spring	Current Methods in Molecular Research II	Director/Lecturer
2009	Spring	Current Methods in Molecular Research II	Director/Lecturer
2008	Fall	Structure and Function of Macromolecules	Instructor
2008	Spring	Current Methods in Molecular Research II	Director/Lecturer
2007	Fall	Current Methods in Biochemistry I	Director/Lecturer
2007	Spring	Current Methods in Biochemistry I	Director/Lecturer
2006	Fall	Current Methods in Biochemistry I	Director/Lecturer
2006	Fall	Metabolic Biochemistry	Instructor
2006	Spring	Current Methods in Biochemistry I	Director/Lecturer
2005	Fall	Current Methods in Biochemistry I	Director/Lecturer
2005	Fall	Metabolic Biochemistry	Instructor
2005	Spring	Current Methods in Biochem. and Mol. Biol. I	Director/Lecturer
2004	Fall	Metabolic Biochemistry	Instructor
2003	Fall	Metabolic Biochemistry	Instructor
2002	Fall	Seminar in Biochemistry & Molecular Biol	Director
2002	Spring	Current Methods in Molecular Research I	Instructor
2002	Spring	Seminar in Biochemistry & Molecular Biol	Director
2002	Spring	Topics in Biochemistry and Molecular Biology	Instructor
2001	Fall	Metabolic Biochemistry	Instructor
2001	Fall	Seminar in Biochemistry & Molecular Biol	Director
2001	Spring	Topics in Biochemistry and Molecular Biology	Instructor
2000	Spring	Current Methods in Molecular Research I	Instructor
2000	Spring	Seminar in Experimental Pathology	Instructor
2000	Spring	Topics in Biochemistry and Molecular Biology	Instructor
1999	Fall	Current Methods in Molecular Research I	Instructor
1999	Fall	Metabolic Biochemistry	Instructor
1998	Fall	Current Methods in Molecular Research I	Instructor
1998	Fall	Metabolic Biochemistry	Instructor
1998	Spring	Current Methods in Molecular Research I	Instructor
1998	Spring	Topics in Biochemistry and Molecular Biology	Instructor
1997	Spring	Current Methods in Molecular Research I	Instructor
1996	Spring	Current Methods in Molecular Research I	Instructor
1995	Spring	Current Methods in Molecular Research I	Instructor
1994	Fall	Molecular Basis of Gene Action	Director
1994	Spring	Current Methods in Molecular Research I	Instructor
1993	Fall	Molecular Basis of Gene Action	Director
1993	Spring	Current Methods in Molecular Research I	Instructor
1993	Spring	Topics in Biochemistry and Molecular Biology	Instructor
1992	Fall	Molecular Basis of Gene Action	Instructor

1992	Spring	Macromolecular Structure and Function I	Instructor
1991	Spring	Topics in Biochemistry and Molecular Biology	Instructor
1991	Spring	Topics in Biochemistry and Molecular Biology	Instructor
1990	Spring	Topics in Biochemistry and Molecular Biology	Instructor
1988	Fall	Medical School Biochemistry	Instructor
1988	Spring	Eukaryotic Gene Expression	Instructor

Research Tutorial Students

Last Name	First Name	Year
Brewer	Kari	2006
Hall	Mandy	2005
Xue	Tao	2000
Coleman	David	1999
Yin	Shenmin	1997
Zhang	Yan	1997
Perez	Johnny	1997
Su	Xuefeng	1997
Whitfill	Margaret	1997
Ozen	Mustafa	1994
Ozpolat	Bulent	1994
Shen	Haifa	1993
Lu	Qingxian	1993
Stockand	James	1993
Hu	Mei	1992
Gonzalez-Garay	Manuel	1991
Lin	Xin	1990
Dotson	Darrell	1990
Mullen	James	1990
Heckman	Caroline	1989
Blouin	George	1989
Hodgson	Anne	1989
Rohde	Larry	1988

Chair of Mentor of Graduate Student Advisory Committees

First Name	Last Name	Date of Graduation	Degree
Zhang	Yan	4/12/00	M.S.
Davis	Bryan	4/10/96	M.S.
Kleerekoper	Quinn	4/10/96	Ph.D.
Lin	Xin	6/12/91	Ph.D.
Dotson	Darrell	10/10/90	Ph.D.
Mullen	James	6/27/90	Ph.D.
Hodgson	Anne	7/12/89	Ph.D.
Negele	Judith	5/10/89	M.S.

Member of Graduate Student Advisory Committees

Last Name	First Name	Start	End	Degree
Chinnam	Nagababu	09/01/17	Present	Ph.D.
Tellman	Tristen	10/01/17	Present	Ph.D.
McCarthy	Micheal	09/10/14	Present	Ph.D.

Nurik	Caitlin	10/9/14	04/06/15	Ph.D.
Dolino	Drew	10/9/13	Present	Ph.D.
Liu	Hong	10/9/13	Present	Ph.D.
Maxwell	Kelsey	8/14/13	Present	Ph.D.
Sirrieh	Rita	7/10/13	Present	Ph.D.
Robinson	Melissa	3/13/13	2015	Ph.D.
Martinon	Daisy	2/13/13	Present	Ph.D.
Hocker	Harrison	5/9/12	5/10/14	Ph.D.
Hulsurkar	Mohit	1/27/12	12/12/12	Ph.D.
Chandrasekar	Anuja	12/14/11	5/10/13	Ph.D.
Rambahal	Nandini	11/9/11	8/13/13	M.S.
Rambahal	Nandini	9/14/11	11/9/11	Ph.D.
Farley	Madeline	5/12/10	9/1/2015	Ph.D.
Debashish	Sahu	2/5/09	6/6/12	Ph.D.
Datta	Proleta	12/18/08	8/14/12	Ph.D.
May	Sarah	11/12/08	6/9/10	Ph.D.
Flynn	Jesse	4/22/08	12/17/10	Ph.D.
Goins	Aron	12/12/07	5/3/08	M.S.
Brewer Savannah	Kari	8/8/07	12/18/08	Ph.D.
Srinivasan	Sankara Naray	9/13/06	12/19/08	Ph.D.
Goins	Aron	6/23/06	12/12/07	Ph.D.
Piggott	Leslie	12/14/05	5/3/08	Ph.D.
Wang	Ying	9/14/05	2/22/07	Ph.D.
Hatley	Jade	7/13/05	8/13/08	Ph.D.
Kalmbach	Brian	4/13/05	8/13/08	Ph.D.
Marks	Hilary	3/9/05	5/5/07	Ph.D.
Ray	Starlight	1/8/05	2/5/08	Ph.D.
Huang	Helen	4/14/04	12/14/07	Ph.D.
Parish	Bridgette	12/11/02	8/14/03	M.S.
Turman	Cheri	1/9/02	5/6/06	Ph.D.
Geissler	Brett	12/12/01	9/27/04	Ph.D.
Gaertner	Tara	10/10/01	5/7/04	Ph.D.
Parish	Bridgette	6/13/01	12/11/02	Ph.D.
Gupta	Prateek	3/14/01	8/13/01	M.S.
Young	Hays	7/12/00	2/13/02	Ph.D.
Kim	Sally	4/12/00	12/17/04	Ph.D.
Coleman	David	9/8/99	4/3/06	Ph.D.
Yin	Shenmin	11/11/98	4/11/01	Ph.D.
Su	Xuefeng	5/13/98	5/7/05	Ph.D.
Yang	Wei-Chung	2/11/98	12/17/99	Ph.D.
Walterscheid	Jeffrey	6/11/97	9/10/97	Ph.D.
Perez	Johnny	6/9/97	11/11/98	Ph.D.
Langowski	John	11/13/96	8/9/00	M.S.
Trawick	Barton	8/14/96	12/9/98	Ph.D.
Kolb	Stephen	4/14/96	12/18/98	M.D./Ph.D.
Qazi	Usman	1/10/96	5/8/96	Ph.D.
Izor	Robert	6/14/95	8/29/95	Ph.D.
Izor	Robert	12/14/94	6/14/95	M.S.
Zhang	Xue-Nong	10/19/94	5/14/97	Ph.D.
Ghebranius	Nader	6/8/94	12/3/96	Ph.D.
Shen	Haifa	6/8/94	3/31/97	Ph.D.
Xia	Weiming	3/13/94	12/12/94	Ph.D.
Kleerekoper	Quinn	1/12/94	4/10/96	Ph.D.
Zhou	Lei	1/12/94	8/10/95	M.S.
Zhang	Xin	6/9/93	12/16/94	M.S.
Stalcup	Robin	4/14/93	5/3/96	Ph.D.
Hudmon	Andy	10/14/92	8/8/97	Ph.D.
Burgess	Robert	6/17/92	4/13/94	Ph.D.
Ghobrial	Rafik	6/17/92	3/9/94	Ph.D.

Lu	Qingxian	4/8/92	6/8/94	M.S.
Gonzalez-Garay	Manuel	7/10/91	10/19/94	Ph.D.
Wang	Weiye	7/10/91	3/11/92	Ph.D.
Ren	Yong	1/11/91	9/11/91	Ph.D.
Farmer	Terry	10/10/90	5/11/96	Ph.D.
James	Guy	5/9/90	12/10/91	Ph.D.
Orengo	Claudia	4/18/90	7/11/91	M.D./Ph.D.
Blouin	George	11/8/89	4/10/92	Ph.D.
Chen	Huei-Mei	2/8/89	10/9/91	Ph.D.
Abbott	F. Janine	10/12/88	5/10/90	M.S.
Jin	Xiaomei	7/26/88	12/18/92	Ph.D.
Ridall	Amy	3/9/88	9/13/89	Ph.D.
Brennan	Thomas	7/8/87	1/10/90	Ph.D.

Graduate Student PhD. Candidacy Examination Committees

Last Name	First Name	Role	Date
Robinson	Melissa	Member	7/11/12
Hocker	Harrison	Member	9/21/11
Farley	Madeline	Member	2/9/11
Chen	Jiandong	Member	9/8/10
May	Sarah	Member	2/10/10
Brewer Savannah	Kari	Member	9/10/08
Gonzalez-McGehee	Jennifer	Member	11/8/07
Bell	Jordan	Member	10/10/07
Zhou	Yang	Member	10/10/07
Kalmbach	Brian	Member	11/20/06
Marks	Hilary	Member	4/13/04
McLeod	Michael	Member	2/20/02
Coleman	David	Member	9/12/01
Gaertner	Tara	Member	8/9/00
Su	Xuefeng	Chair	11/10/99
Kim	Sally	Member	10/13/99
Boatman	Stacy	Member	3/10/99
Yang	Wei-	Member	9/10/97
Ghebranious	Nader	Chair	12/13/95
Shen	Haifa	Chair	9/14/95
Xia	Weiming	Member	1/12/94
Burgess	Robert	Member	7/14/93
Chen	Huei-	Member	5/8/91
Whaley	Brenda	Member	11/14/90
Jin	Xiaomei	Member	12/13/89
James	Guy	Member	11/8/89

Current Grants

DP150093 (Gorfe and Putkey PIs) 12-01-2014 – 11/31/2017 4.8 calendar months
 CPRIT \$1,969,826

“Targeting and Elusive Foe: Development of K-Ras Inhibitors”

This project will use computational methods to screen libraries of commercially-available compounds for their ability to bind to oncogenic K-Ras. NMR and other biophysical approaches will then be used to confirm binding potential and binding sites.

R01 GM104290-01 (Putkey) 09-01-12 – 08/31/16 (NCE) 3.6 calendar months
 NIGMS \$780,000

“Regulators of Calcium Signaling”

This project will define the molecular and cellular basis for how PEP-19 and neurogranin regulate ligand-dependent Ca²⁺ release and apoptosis.

Previous Grants

07-01-10 to 06-30-12	Modulation of Calmodulin Signaling. American Heart Association. \$94,000 10POST3110010 (Sponsor; X. Wang, Awardee)
07-01-09 to 06-30-11	Modulation of Calmodulin Signaling. American Heart Association. \$140,000 GRNT2280427 (PI)
01-01-08 to 12-31-12	Transmembrane Regulation of Ectodomain Shedding. \$1,191,290 NIH R01 GM084175 (Co-PI; Li, PI)
09-01-05 to 09/31/11	Calcium Dependent Protein Regulation. \$1,060,250 NIH R01GM069611 (PI)
06-01-05 to 05-30-10	Neural Models of Plasticity: Molecules to Networks. \$684,000 NIH/NINDS (Co-PI; Byrne, PI)
09-27-04 to 08-31-09	Molecular Determinants of E-C Coupling \$2,332,430. NIH/NIAMS (Subcontractor; Hamilton PI).
06-01-03 to 05-31-08	Structural Basis for Regulation of Calmodulin Signaling. Robert Welch Foundation. \$150,000 (PI).
06-01-00 to 05-31-03	The Biochemical and Structural Basis of a Genetic Cartilage Disease. Robert Welch Foundation. \$135,000 (PI).
04-01-99 to 03-31-00	High Performance Digital 500 NMR Console and Probes NIH Shared Instrumentation Grant, NIH 1 S10 RR 13066/201-2-1148 \$343,828 (PI).
01-01-98 to 12-31-01	Interaction of Troponin C with Ca ²⁺ -sensitizing Compounds, National American Heart Association Grant-in-Aid, \$165,000 (PI).
06-01-97 to 05-31-00	Structure/Function Relationships in Cardiac Troponin C. Robert Welch Foundation. \$120,000 (PI).
06-01-94 to 05-31-97	Structure/Function Relationships in Cardiac Troponin C. Robert Welch Foundation. \$90,000 (PI).
04-09-92 to 03-31-94	Cardiac Muscle: Molecular Mechanisms of Regulation (supplement). NIH R01 HL045724-02S14. \$32,848 (PI).
04-19-92 to 03-31-02	Cardiac Muscle: Molecular Mechanisms of Regulation. NIH HL45724 \$1,255,597 (PI).
06-01-91 to 05-31-94	Structure/Function Relationships in Cardiac Troponin C. Robert Welch Foundation. \$75,000 (PI).
09-01-90 to 08-31-95	Functional Domains in Cardiac Troponin C. NIH 1 K04 AR 01831 RCDA Award. \$341,092 (PI).

02-01-88 to 01-31-93	Functional Domains in Cardiac Troponin C. NIH RO1 AR 39218. \$338,269 (PI).
12-01-89 to 11-31-91	Generation of Calcium-Dependent Proteins by Genetic Engineering Texas Advanced Technology Program, \$100,000 (PI).
06-01-88 to 05-31-91	Structure/Function Relationships in Cardiac Troponin C. Robert Welch Foundation. \$75,000 (PI).
02-01-88 to 01-31-93	Functional Domains in Cardiac Troponin C. NIH RO1 AR 39218. \$338,269 (PI).
07-01-87 to 12-31-89	Structure/Function of Genetic-Engineered Cardiac Troponin C. American Heart Association-Texas Affiliate. \$54,868 (PI).
10-01-86 to 09-30-87	Vitamin D-dependent Gene Regulation. NIH/BRSG. \$8,580 (PI).
01-01-86 to 12-31-86	Molecular Biology of Slow Muscle Troponin C. NIH/BRSG. \$9,750 (PI).

Publications:

Articles

1. **Putkey, J.A.**, Wecksler, W.R. and Norman, A.W. (1978): The interaction of 1,25-dihydroxyvitamin D₃ with its intestinal mucosa receptor: Kinetic parameters and structural requirements. *Lipids* 13: 723-729.
2. Norman, A.W., Miller, B.E. and **Putkey, J.A.** (1980): Evaluation of the diurnal production of 1,25-dihydroxyvitamin D and vitamin D's effects on intestinal membrane organization. *Prog. Biochem. Pharmacology* 17: 160-167.
3. Norman, A.W., **Putkey, J.A.** and Nemere, I. (1981): Vitamin D-mediated intestinal calcium transport: Analysis of the complexity of the process. In: *Calcium and Phosphate Transport Across Biomembranes* (F. Bronner and M. Peterlik, eds.) Academic Press, New York, pp 263-268.
4. **Putkey, J.A.** and Norman, A.W. (1982): Hormonal regulation of calcium homeostasis I: Vitamin D. In: *The Role of Calcium in Biological Systems, Vol. II* (Anghileri, L.J. and Tuffet, A.M.A., eds.) CRC Press, Inc., Boca Raton, Florida, pp 171-201.
5. Norman, A.W., **Putkey, J.A.** and Nemere, I. (1982): Intestinal calcium transport: Pleiotropic effects mediated by vitamin D. *Fed. Proc.* 41: 78-83.
6. **Putkey, J.A.**, Spielvogel, A.M., Sauerhaber, R.D., Dunlap, C.S. and Norman, A.W. (1982): Vitamin D-mediated intestinal calcium transport: Effects of essential fatty acid deficiency and spin label studies of enterocyte membrane lipid fluidity. *Biochem. Biophys Acta* 688: 177-190.
7. **Putkey, J.A.**, Nemere, I., Dunlap, C.S., Sauerhaber, R.D. and Norman, A.W. (1982): Membrane effects of vitamin D: The role of membrane lipids and an analysis of membrane topography. In: *Vitamin D, Chemical, Biochemical and Clinical Endocrinology of Calcium Metabolism* (Norman, A.W. *et al.*, eds.) Walter de Gruyter Co., Berlin, New York, pp. 301-304.

8. Nemere, I., **Putkey, J.A.** and Norman, A.W. (1983): Vitamin D-mediated alterations in the topography of intestinal brush border proteins: Effect of papain on hydrolase release and calcium uptake. *Arch. Biochem. Biophys.* 222: 610-620.
9. Tanaka, T., Ts'ui, G.F., Putkey, J.A., Lagace, L., Lai, E., Stein, J.P. and Means, A.R. (1983): Isolation, structure and expression of vertebrate calmodulin genes. In: *Calcium-Binding Proteins 1983* (Carafoli, E. et al., ed.) Elsevier, pp 93-101.
10. **Putkey, J.A.** and Norman, A.W. (1983): Vitamin D: Its effect on protein composition and core material structure of the chick intestinal brush-border membrane. *J. Biol. Chem.* 258: 8971-8978.
11. **Putkey, J.A.**, Ts'ui, K.F., Tanaka, T., Lagace, L., Stein, J.P., Lai, E.C. and Means, A.R. (1983): Chicken calmodulin genes: A species comparison of cDNA sequences and isolation of a genomic clone. *J. Biol. Chem.* 258: 11864-11870.
12. Means, A.R., Slaughter, G.R. and **Putkey, J.A.** (1984): Postreceptor signal transduction by cyclic adenosine monophosphate and the Ca²⁺-calmodulin complex. *J. Cell Biol.* 99: 226s-231s.
13. Simmen, R.C.M., Tanaka, T., Ts'ui, K.F., **Putkey, J.A.**, Scott, M., Lai, E.C. and Means, A.R. (1985): The structural organization of the chicken calmodulin gene. *J. Biol. Chem.* 260: 907-912.
14. Means, A.R., Lagace, L., Simmen, R.C.M. and **Putkey, J.A.** (1985): Calmodulin gene structure and expression. In: *Calcium and Cell Physiology* (Marme, D., ed.) Springer-Verlag, Berlin, New York, pp 127-139.
15. **Putkey, J.A.**, Slaughter, G.R. and Means, A.R. (1985): Bacterial expression and characterization of proteins derived from the chicken calmodulin cDNA and a calmodulin processed gene. *J. Biol. Chem.* 260: 4704-4712.
16. Means, A.R., **Putkey, J.A.**, Simmen, R.C.M. and Berchtold, M.W. (1985): Structure function and expression of calmodulin genes. In: *Neurobiology: Molecular Biological Approaches to Understanding Neuronal Function and Development*. (P. O'Lague, ed.). Alan R. Liss, N.Y. pp 169-177.
17. Seeholzer, S.H., Cohn, M., **Putkey, J.A.**, Means, A.R. and Crespi, H.L. (1986): NMR studies of a complex of deuterated calmodulin with mellittin. *Proc. Natl. Acad. Sci. USA* 83: 3634-3638.
18. **Putkey, J.A.**, Draetta, G.F., Slaughter, G.R., Klee, C.B., Cohen, P., Stull, J.T. and Means, A.R. (1986): Genetically engineered calmodulin differentially activate target enzymes. *J. Biol. Chem.* 261: 9896-9903.
19. **Putkey, J.A.**, Nemera, I. and Norman, A.W. (1986): Vitamin D status and brush border membrane vesicles: 1,25-dihydroxyvitamin D induced destabilization. *J. Bone and Min. Res.* 1: 305-311.
20. Guerriero, V. Jr., Russo, M.A., Olson, N.J., **Putkey, J.A.** and Means, A.R. (1986): Domain organization of chicken gizzard myosin light chain kinase deduced from a cloned cDNA. *Biochemistry* 25: 8372-8381.
21. Gregori, L., Marriotti, D., **Putkey, J.A.**, Means, A.R. and Chau, V. (1987): Bacterially synthesized calmodulin is a specific substrate for ubiquitination. *J. Biol. Chem.* 262: 2562-2567
22. **Putkey, J.A.**, Donnelly, P.V. and Means, A.R. (1987): Bacterial expression vectors for calmodulin. *Methods in Enzymology* 139: 303-317.

23. **Putkey, J.A.** and Means, A.R. (1987): Use of genetically engineered calmodulins as structure-function probes. In: Calcium Binding Proteins in Health and Disease (Norman, A.W., T. C. Vanaman and A. R. Means eds.) Academic Press, Orlando. pp 267-275.
24. **Putkey, J.A.**, Carroll, S.L. and Means, A.R. (1987): The nontranscribing chicken calmodulin pseudogene cross-hybridizes with mRNA from the slow muscle troponin C gene. *Mol. Cell Biol.* 7: 1549-1553.
25. Seeholzer, S.H., Cohn, M., Wand, J.A., **Putkey, J.A.** and Means A.R. (1987). 1H-NMR structural studies of a complex of mellitin with perdeuterated calmodulin. In: Calcium Binding Proteins in Health and Disease. (A. W. Norman, T. C. Vanaman and A. R. Means, eds) Academic Press: Orlando. pp 360-371.
26. Means, A.R., **Putkey, J.A.**, Rasmussen, C. and Epstein, P. (1988). Structure evolution and expression of calcium-binding protein genes. In: Calmodulin (P. Cohn and C. Klee, eds.) Elsevier Biomedical Press, Amsterdam. pp
27. **Putkey, J.A.**, Ono, T., VanBerkum, M.F.A. and Means, A.R. (1988): Functional significance of the central helix in calmodulin. *J. Biol. Chem.* 263(23): 11242-11249.
28. Means, A.R., **Putkey, J.A.** and Epstein, P. (1988): Organization and evolution of genes for calmodulin and other calcium-binding proteins. In: Calmodulin. (Cohen, P. and Klee, C.B. eds.). Elsevier Science Publishers, Amsterdam, pp 17-33.
29. Hurwitz, M.Y., **Putkey, J.A.**, Klee, C.B. and Means, A.R. (1988): Domain II of calmodulin is involved in activation of calcineurin. *FEBS Lett.* 238(1):82-86.
30. **Putkey, J.A.**, Sweeney, H.L. and Campbell, S.T. (1989): Site-directed mutation of the trigger calcium-binding sites in cardiac troponin C. *J. Biol. Chem.* 264: 12370-12378.
31. Gulati, J., Babu, A. and **Putkey, J.A.** (1989): Down-regulation of fast-twitch skeletal muscle fiber with cardiac troponin C and recombinant mutants: Structure/function studies. *FEBS Lett.* 248: 5-8.
32. George S., VanBerkum M., Ono, T., Cook, R.G., Hanley R.M., **Putkey, J.A.** and Means A. (1990): Chimeric calmodulin-cardiac troponin C proteins differentially activate calmodulin target enzymes. *J. Biol. Chem.* 265: 9228-9235.
33. Sweeney, H.L., Brito R.M.M., Rosevear, P.R. and **Putkey, J.A.** (1990): The low-affinity Ca²⁺-binding sites in cardiac/slow skeletal muscle troponin C perform distinct functions: Site I alone cannot trigger contraction. *Proc. Natl. Acad. Sci. USA* 87: 9538-9542.
34. **Putkey, J.A.**, Liu, W. and Sweeney, H.L. (1991): Function of the N-terminal calcium binding sites in cardiac/slow troponin C assessed in fast skeletal muscle fibers. *J. Biol. Chem.* 266: 14881-14884.
35. Brito, R.M.M., **Putkey, J.A.**, Stranadka, N.C.J., James, M.N.G. and Rosevear, P.R. (1991): Comparative NMR studies on cardiac troponin C and a mutant incapable of binding calcium at site II. *Biochemistry* 30: 10236-10245.
36. Negele, J.C., Dotson, D.G., Lui, W., Sweeney, H.L. and **Putkey, J.A.** (1992): Mutation of the high affinity calcium binding sites in cardiac troponin C. *J. Biol. Chem.* 267: 825-831.
37. Krudy, G., Brito, R. M. M., **Putkey, J.A.** and Rosevear, P.R. (1992): Conformational changes in the metal binding sites of cardiac troponin C induced by calcium binding. *Biochemistry* 31: 1595-1602.

38. **Putkey, J.A.**, Dotson, D.G. and Mouawad, P. (1993): Formation of inter- and intramolecular disulfide bonds can activate cardiac troponin C. *J. Biol. Chem.* 268(10): 6827-6830.
39. Brito, R.M.M., Krudy, G.A., Negele, J.C., **Putkey, J.A.** and Rosevear, P.R. (1993): Calcium plays distinctive structural roles in the N- and C-terminal domains of cardiac troponin C. *J. Biol. Chem.* 268: 20966-20973.
40. Dotson, D.G. and **Putkey, J.A.** (1993): Differential recovery of Ca²⁺-binding in mutated EF-hands of cardiac troponin C. *J. Biol. Chem.* 268: 24067-24073.
41. Liu, W, Dotson, D.G., Lin, X., Mullen, J. J., III, Gonzalez-Garay, L., Lu, Q. and Putkey, J.A. (1994): The presence but not the sequence of the N-terminal peptide in cardiac TnC is important for function. *FEBS Lett.* 347: 152-156. PMID: 8033994
42. Lin, X., Krudy, G.A., Howarth, J., Brito, R.M.M., Rosevear, P.R. and **Putkey, J.A.** (1994): Assignment and calcium dependence of methionyl α C and α H resonances in cardiac troponin C. *Biochemistry* 33: 14434-14442. PMID: 7981203
43. Howarth, J.W., Krudy, G.A., Lin, X., **Putkey, J.A.** and Rosevear, P.R. (1995): An NMR and spin label study of the effects of binding calcium and troponin I inhibitory peptide to cardiac troponin C. *Protein Science* 4: 671-680. PMID: 7613465
44. Lin, X, Dotson, D.G. and **Putkey, J.A.** (1996): Covalent binding of peptides to the N-terminal hydrophobic region of cardiac troponin C has limited effects on function. *J. Biol. Chem.* 271: 244-249. PMID: 8550567
45. **Putkey, J.A.** and Waxham, M.N. (1996): A peptide model for calmodulin trapping by calcium/calmodulin-dependent protein kinase II. *J. Biol. Chem.* 271: 29619-29623. PMID: 8939892
46. **Putkey, J.A.**, Liu, W., Lin, X., Ahmed, S., Zhang, M., James Potter, J.D. and Kerrick, W.G.L. (1997): Fluorescent probes attached to Cys 35 or Cys 84 in cardiac troponin C are differentially sensitive to Ca²⁺-dependent events *in vitro* and *in situ*. *Biochemistry* 36: 970-978. PMID: 9020797
47. Parsons, B., Szczesna, D., Zhao, J., Van Slooten, G., Kerrick, W.G.L., **Putkey, J.A.** and Potter, J.D. (1997): The effect of pH on the Ca²⁺ affinity of the Ca²⁺ regulatory sites of skeletal and cardiac troponin C in skinned muscle fibers. *J. Mus. Res. Cell Motil.* 18: 599-609. PMID: 9350012
48. Sia, S.K., Li, M.X., Spyrapoulos, L., Gagne, S.M., Liu, W., **Putkey, J.A.** and Sykes, B.D. (1997): Structure of cardiac muscle troponin C unexpectedly reveals a closed regulatory domain. *J. Biol. Chem.* 272: 18216-18221. PMID: 9218458
49. Kleerekoper, Q, Liu, W., Choi, D. and **Putkey, J.A.** (1998): Identification of binding sites for bepridil and trifluoperazine on cardiac troponin C. *J. Biol. Chem.* 273: 8153-8160. PMID: 9525919
50. Waxham, M.N., Tsai, A-L. and **Putkey, J.A.** (1998): A mechanism for calmodulin (CaM) trapping by CaM-kinase II defined by a family of CaM-binding peptides. *J. Biol. Chem.* 273: 17579-17584. PMID: 9651352
51. Hazard, H., Nicole, S., **Putkey, J. A.** and Falke, J. J. (1998): The EF-hand trigger site of cardiac troponin C: Calcium binding affinity, selectivity and kinetics. *Protein Science* 7: 2451-2459. PMID: 9828012

52. Kleerekoper, Q. and **Putkey, J.A.** (1999): Drug binding to cardiac troponin C. *J. Biol. Chem.* 274: 23932-23939. PMID: 10446160
53. Li, M.X., Spyrapopoulos, L., Beier, N., **Putkey, J.A.**, and Sykes, B.D. (2000): Interactions of cardiac troponin C with Ca²⁺ sensitizer EMD 57033 and cardiac troponin I inhibitory peptide. *Biochemistry* 39: 8782-8790. PMID: 10913289
54. Li, Y., Love, M.L., **Putkey, J.A.**, and Carolyn Cohen, C (2000): Bepridil opens the regulatory N-terminal lobe of cardiac troponin C. *Proc. Natl. Acad. Sci. USA* 87: 5140-5145. PMCID: PMC25795
55. Hou, J., **Putkey, J.A.**, and Hecht, J.T. (2000): Δ 469 mutation in the type three repeat calcium-binding domain of cartilage oligomeric matrix protein (COMP) disrupts calcium binding. *Cell Calcium* 27:309-314. PMID: 11013461
56. **Putkey, J. A.**, and Liu, W. (2002) Isolation of cardiac troponin C. in Calcium binding protein protocols Volume 1: Reviews and case studies (Vogel, H. J. ed), Humana Press Inc., Totowa, NJ. Pp 317-334. PMID: 11833343
57. Kleerekoper, Q., Hecht, J.T., and **Putkey, J.A.** (2002): Disease-causing mutations in COMP cause and unstructured calcium binding domain. *J. Biol. Chem.* 277: 10581-10589. PMID: 11782471
58. **Putkey, J.A.**, Kleerekoper, Q. Gaertner, T.A. and Waxham, M.N. (2003) A new role for IQ motif proteins in regulating calmodulin function. *J. Biol. Chem. (Accelerated Communication)* 278: 49667-49670. [See commentary: PEPping Up the Calmodulin Response *Science. STKE* 2003 (213), tw484. [DOI: 10.1126/stke.2132003tw484)]. PMID: 14551202
59. Gaertner, T.R., **Putkey, J.A.**, and Waxham, M.N. (2004) RC3/Neurogranin and Ca²⁺/calmodulin-dependent protein kinase II produce opposing effects on the affinity of calmodulin for calcium. *J. Biol. Chem.* 279: 9374-82. PMID: 15262982
60. Xiong, L., Kleerekoper, Q.K., He, R., **Putkey, J.A.**, and Hamilton, H. L. (2005) Sites on Calmodulin that Interact with the Carboxyterminal Tail of Ca_v1.2 Channel. *J. Biol. Chem.* 280: 7070-7079. PMCID: PMC2832960
61. Kubota, Y. Gaertner, T.R., **Putkey, J.A.**, and Waxham, M.N. (2005) A novel Monte Carlo simulation for molecular interactions and diffusions in postsynaptic spine. *Neurocomputing* 65-66: 595-602.
62. Maximiciuc, A.A., **Putkey, J.A.**, Shamoo, Y. and MacKenzie, K.R. (2007) Complex of calmodulin with a ryanodine receptor target reveals a novel, flexible binding mode. *Structure*, 14: 1547-1556. PMID: 17027503
63. Kubota, Y., **Putkey, J.A.**, Waxham, M.N. (2007) Neurogranin controls the spatiotemporal pattern of postsynaptic Ca²⁺/CaM signaling. *Biophysical J.*, 93: 3848-3859. PMCID: PMC2084249
64. Kubota, Y., **Putkey, J.A.**, Shouval, H.Z., and Waxham, M.N. (2008) IQ-motif proteins influence intracellular free Ca²⁺ in hippocampal neurons through their interactions with calmodulin. *J. Neurophysiol.* 99:264-276. PMCID: PMC3622048
65. **Putkey, J.A.**, Waxham, M.N., Gaertner, T.A., Brewer, K.J., Goldsmith, M., Kubota, Y., and Kleerekoper, Q.R. (2008) Acidic/IQ Motif Regulators of Calmodulin *J. Biol. Chem.* 283: 1401-1410. PMCID: PMC3617039
66. Kleerekoper, Q.K., and **Putkey, J.A.**, (2009) PEP-19 is an intrinsically disordered regulator of calmodulin signaling. *J. Biol. Chem.* 284: 7455-7464. PMCID: PMC2658041

67. Byrne, M.J., **Putkey, J.A.**, Waxham, M.N. and Kubota, Y. (2010) Dissecting cooperative calmodulin binding to CaM kinase II: A detailed stochastic model. *J. Comp. Neuro. Sci.* 27:621-638. PMID: PMC3617043
68. Xiong, L.-W., Wang, X., Kleerekoper, Q.K. and **Putkey J.A.** (2010) Intra and interdomain effects due to mutation of calcium-binding sites in calmodulin. *J. Biol. Chem.* 285: 8094-8103. PMID: PMC2832960
69. Wang, X., Kleerekoper, Q.K., Xiong, L.W. and **Putkey, J.A.** (2010) Intrinsically disordered PEP-19 confers unique dynamic properties to apo and calcium calmodulin.. *Biochemistry* 49: 10287-10297 2010. PMID: PMC3001392
70. Deng, W., Srinivasan, S., Zheng, X., **Putkey, J.A.** and Li R. (2011) Interaction of calmodulin with I-selectin at the membrane interface: Implication on the regulation of I-selectin shedding. *J. Mol. Biol.* 411: 220-33. PMID: PMC3143253
71. Wang, X., Xiong, L.W., El Ayadi, A., Boehning, D., and **Putkey, J.A.** (2013) The calmodulin regulator protein, PEP-19, sensitizes ATP-induced Ca^{2+} (2013). *J. Biol. Chem.* 288: 2040-2048 PMID: 23204517
72. Deng, W., **Putkey, J.A.**, and Li, R. (2013) Calmodulin adopts an extended conformation when interacting with L-selectin in membranes. *PLOS ONE* 8:e62861. PMID: 23658780
73. Hoffman, L, Chandrasekar, A., Wang, X, **Putkey, J.A.**, and Waxham M.N. (2014) Neurogranin alters the structure and calcium-binding properties of calmodulin. *J. Biol. Chem.* 289: 14644-14655. PMID: PMC4031520
74. Wang, W. and Putkey, JA (2016) PEP-19 modulates calcium binding to calmodulin by electrostatic steering. *Nature Communications.* 7:13583. doi: 10.1038/ncomms13583.

Meeting Abstracts

1. **Putkey, J.A.** and Norman, A.W. (1979): Vitamin D-induced organization of intestinal epithelial cell membranes. *Fed. Proc.* 38:384.
2. **Putkey, J.A.** and Norman, A.W. (1980): Vitamin D affects membrane protein topology of intestinal epithelial cells. *Fed. Proc.* 39:608.
3. **Putkey, J.A.** and Norman, A.W. (1981): Vitamin D alters the turnover and topography of specific intestinal brush border membrane proteins. *Fed. Proc.* 40:842.
4. **Putkey, J.A.** and Norman, A.W. (1982): Vitamin D induces specific changes in the protein component of the intestinal brush border membrane. *Fed. Proc.* 41:279.
5. **Putkey, J.A.** and Means, A.R. (1985): Mutagenesis of the calmodulin gene. *Fed. Proc.* 44: 1229.
6. **Putkey, J.A.**, Stein, J.P. and Means, A.R. (1983): Construction of procaryotic expression vectors for calmodulin and calmodulin-like genes. *J. Cell Biol.* 97 (Suppl):146a.
7. **Putkey, J.A.**, Slaughter, G.R. and Means, A.R. (1984): Bacterial expression and characterization of normal and processed chicken calmodulin gene products. *J. Cell Biol.* 99(Suppl):431a.

8. **Putkey, J.A.** and Means, A.R. (1985): A chicken calmodulin processed gene is homologous to a distinct muscle-specific mRNA. *J. Cell Biol.* 101(Suppl):473a.
9. George, S. , **Putkey, J.A.**, Ono, T., Cook, R. and Means, A.R. (1988): In Vitro studies of hybrids of cardiac troponin C and calmodulin. *J. Cellular Biochem.* 12c:337.
10. Vanberkum, M.F.A., Ono, T., **Putkey, J.A.** and Means, A.R. (1988): Mutations in the central helix of calmodulin affect its interaction with phosphodiesterase. *Endocrinology.* American Society of Cell Biology.
11. George S., **Putkey J.** and Means, A. (1988): Chimeric cardiac troponin C - calmodulin molecules differentially activate target enzymes. Featured Research Symposium, Molecular Biology of Vascular Smooth Muscle, American Heart Association. *Circulation (Suppl. II)* 78, 66.
12. Campbell, S.T. and **Putkey, J.A.** (1989): Mutation of the trigger calcium-binding sites in cardiac troponin C. *J. Cell Biol.* 107:47aFASEB.
13. **Putkey, J.A.** , Sweeney, H.L. and Negele, J. (1989): Mutation of the four calcium-binding sites in cardiac troponin C. ASBMB/AAI Meeting, New Orleans.
14. George S., **Putkey J.A.**, VanBerkum M. and Means A. (1989) Activation of protein kinases by calmodulin - cardiac troponin C chimeric proteins. UCLA Symposium, Molecular Biology of the Cardiovascular System. *J. Cellular Biochem.* 13E, 218.
15. George S., VanBerkum M., Hanley R., **Putkey J.A.** and Means A. (1989) Physical characterization and calcium binding properties of calmodulin/cardiac troponin C proteins. *J. Cell Biol.* 109, 170a.
16. **Putkey, J.A.** (1989): Mutation of the trigger calcium binding sites in cardiac troponin C. American Heart Association Texas Affiliate, Galveston, TX.
17. **Putkey, J.A.**, Sweeney, H.L. and Negele, J. (1990): Functional analysis of the four calcium binding sites in cardiac troponin C using site directed mutagenesis. Seventh International Symposium on Calcium-Binding Proteins in Health and Disease. Alberta, Canada.
18. Brito, R., **Putkey, J.A.** and Rosevear, P.R. (1990) NMR studies on wild type and mutant cardiac troponin C. ASBMB/AAI Meeting, New Orleans, LA.
19. Brito, R., **Putkey, J.A.** and Rosevear, P.R. (1990): NMR studies on wild type and mutant cardiac troponin C. Seventh International Symposium on Calcium-Binding Proteins in Health and Disease. Alberta, Canada.
20. Negele, J.C., Rosevear, P.R. and **Putkey, J.A.** (1990): Functional analysis of Ca²⁺/Mg²⁺ binding sites in cardiac troponin C using site-directed mutagenesis. Seventh International Symposium on Calcium-Binding Proteins in Health and Disease. Alberta, Canada.
21. Krudy G.A., Brito, R.M.M., **Putkey, J.A.** and Rosevear, P.R. (1991): Multi-dimensional NMR of isotopically labeled cardiac troponin C. *Keystone Symposia Frontiers of NMR in Molecular Biology.*
22. Brito, R.M.M, **Putkey, J.A.**, Krudy, G.A. and Rosevear, P.R. (1991): Comparative NMR studies of cardiac troponin C and a mutant incapable of binding calcium at site II. *Biophysical Society Meeting.*

23. Sweeney, H.L. and **Putkey, J.A.** (1991): Mutation of calcium binding sites I and II in cardiac troponin C. Biophysical Society Meeting.
24. **Putkey, J.A.**, Amed, S., Zhang, M.Z., Hoar, P.E. and Kerrick, W.G.L. (1991): Calcium and magnesium-dependent protein dynamics in monocysteine derivatives of troponin C *in vitro* and in cardiac muscle contraction. Biophysical Society Meeting.
25. 26. **Putkey, J.A.**, Sweeney, H.L. and Negele, J. (1991): Mutation of calcium binding sites III and IV in cardiac troponin C. Biophysical Society Meeting.
26. Kerrick, W.G.L., Zhang, M.Z., Chen, E., Potter, J.D., Amed, S. and **Putkey, J.A.** (1992): Calcium activation of ATPase Activity and changes in cardiac cTnCIAANS fluorescence precedes force development. ASBMB/Biophysical Society Meeting, Houston.
27. Zhang, M.Z., **Putkey, J.A.**, Amed, S., Potter, J.D. and Kerrick, W.G.L. (1992): Calcium dependent activation of force and cTnC-IAANS fluorescence form mono-cysteine derivatives of troponin (TnC) in skinned cardiac muscle fibers. ASBMB/Biophysical Society Meeting, Houston.
28. Brito, R.M.M, Lin, X., Krudy, G.A., Dowhan, M.J., **Putkey, J.A.** and Rosevear, P.R. (1992): Distance measurements in selectively spin-labeled cardiac troponin C. ASBMB/Biophysical Society Meeting, Houston.
29. Krudy G.A., Brito, R.M.M., **Putkey, J.A.** and Rosevear, P.R. (1992): Conformational changes in the metal binding sites of cardiac troponin C induced by calcium binding. ASBMB/Biophysical Society Meeting, Houston.
30. Lin, X., Krudy, G.A., Brito, R.M.M., Rosevear, P.R. and **Putkey, J.A.** (1992): Use of site-directed mutagenesis and NMR spectroscopy to study protein dynamics in cardiac troponin C. ASBMB/Biophysical Society Meeting, Houston.
31. Dotson, D.G., Negele, J. and **Putkey, J.A.** (1992): Mutation of the high affinity Ca²⁺/Mg²⁺ binding sites in cardiac troponin C. ASBMB/Biophysical Society Meeting, Houston.
32. Dotson, D.G., Negele, J. and **Putkey, J.A.** (1992): Mutation of the high affinity Ca²⁺/Mg²⁺ binding sites in cardiac troponin C. Eight International Symposium on Calcium-Binding Proteins and Calcium Function in Health and Disease. Ca29.
33. Lin, X., Krudy, G.A., Brito, R.M.M., Rosevear, P.R. and **Putkey, J.A.** (1992): Use of site-directed mutagenesis and NMR spectroscopy to study protein dynamics in cardiac troponin C. Eight International Symposium on Calcium-Binding Proteins and Calcium Function in Health and Disease. N16.
34. Mullen, J.J., **Putkey, J.A.** (1992) use of chimeric cardiac/skeletal troponin C proteins as structure function probes. Eight International Symposium on Calcium-Binding Proteins and Calcium Function in Health and Disease. B24
35. **Putkey, J.A.**, Dotson, D.G. and Mouawad, P. (1992): Formation of an intramolecular disulfide bond renders cardiac troponin C calcium independent. Eight International Symposium on Calcium-Binding Proteins and Calcium Function in Health and Disease. B25
36. **Putkey, J.A.**, Dotson, D.G. and Mouawad, P. (1992): Formation of an intramolecular disulfide bond renders cardiac troponin C calcium independent. ASBMB/Biophysical Society Meeting, Houston.

37. Mullen, J.J., III and **Putkey, J.A.** (1992): Use of chimeric cardiac/skeletal troponin C proteins as structure function probes. ASBMB/Biophysical Society Meeting, Houston.
38. 35. Krudy, G. A., Brito, R.M.M., Negele, J.C., **Putkey, J.A.** and Rosevear, P.R. (1993): Calcium Plays Distinctive Structural Roles in the N- and C- Terminal Domains of Cardiac Troponin C. *Biophysical J.* 64, A8.
39. Howarth, J., Krudy, G.A., Lin, X., **Putkey, J.A.** and Rosevear, P.R. (1993): Mapping of methionine residues in cardiac troponin C upon the binding of calcium, troponin I peptide, and bepridil. *Fed. Proc. Fed. Am. Soc. Exp. Biol.* 7, A1078.
40. Parsons, J., Zhao, J., Slooten, G.V., Kerrick, W.G.L., **Putkey, J.A.** and Potter, J.D. (1994): The effect of pH on the Ca²⁺ affinity of the Ca²⁺ regulatory sites of skeletal and cardiac TnC in skinned muscle fibers. Biophysical Society.
41. Krudy, G.A., Kleerekoper, Q., Howarth, J., Putkey, J.A., Guo, X., Solaro, R.J. and Rosevear, P.R. NMR approaches for studying the large troponin C-troponin I complex. 35th Experimental Nuclear Magnetic Resonance Conference, Pacific Grove, California, 1994.
42. Howarth, J., Krudy, G.A., Lin, X., **Putkey, J.A.** and Rosevear, P.R. (1994): Mapping of methionine residues in cardiac troponin C upon the binding of calcium and troponin I peptide. *Biophysical J.* 66, A123.
43. Kleerekoper, Q., Howarth, J., Gao, X., Solaro, R.J. and Rosevear, P. (1995). Cardiac troponin I induced conformational changes in cardiac troponin C as monitored by NMR using site-directed spin and isotope labeling. *Advance ACS Abstracts*, October 1, 1995.
44. Kleerekoper, Q., Krudy, G.A., Guo, X., Howarth, J.W., Putkey, J.A., Solaro, R.J. and Rosevear, P.R. (1994): Spatial relationships in the troponin C - troponin I complex. *FASEB J.* 8, A1294.
45. **Putkey, J.A.** and Liu, W. (1994): The fluorescent dye bANS stimulates ATPase activity of native and TnC-extracted skeletal muscle myofibrils. Biophysical Society Meeting, Baltimore.
46. Dotson, D.G. and **Putkey, J.A.** (1994): Probing the functional significance of the N-terminal hydrophobic pocket in cardiac troponin C. Biophysical Society Meeting.
47. Lin, X., Dotson, D.G., Hudmon, A., Waxham, M.N. and **Putkey, J.A.** (1995): Specific blocking of the N-terminal hydrophobic regions in cTnC and CaM inhibits activation of myofibril ATPase activity, Biophysical Society, .
48. Lin, X., Dotson, D.G., Liu, W. and **Putkey, J.A.** (1995): Is the N-terminal hydrophobic region in cTnC important for function. Ninth International Symposium on Calcium-Binding Proteins and Calcium Function in Health and Disease. Arlee, VA, August 1995.
49. **Putkey, J.A.**, Davis, B., Blumenthal, D. and Waxham, M.N. A peptide model for calmodulin trapping by calmodulin dependent protein kinase II. American Society for Biochemistry and Molecular Biology, New Orleans, LA, May 1996.
50. Sia, S.K., Li, M.X., Spyropoulos, L., Gagne, S.M., **Putkey, J.A.** and Sykes, B.D. NMR solution structure of calcium saturated cardiac muscle troponin C. Biophysical Society, March 1997.
51. Gagne, S.M., Li, M.X., McKay, R.T., Sia, S.K., Spyropoulos, L., **Putkey, J.A.**, Chandra, M., Solaro, R.J., Smillie, L.B. and Sykes, B.D. The calcium induced structural change that triggers skeletal and cardiac muscle contraction. Biophysical Society, March 1997.

52. Gagne, S.M., Li, M.X., Sia, S.K., Spyacopoulos, L., **Putkey, J.A.**, Solaro, R.J., Smillie, L.B., and Sykes, B.D. Elucidation of the mechanism of coupling between calcium-binding and the induced conformational change in calcium regulatory proteins. The Tenth International Symposium on Calcium-Binding Proteins and Calcium Function in Health and Disease. June 1997. A36
53. Kleerekoper, Q., Liu, W., Sia, S., Li, M., Spyacopalous, L., Gagne, S., Sykes, B.D. and **Putkey, J.A.** NMR studies of cardiac troponin C: Solution structure and drug binding. The Tenth International Symposium on Calcium-Binding Proteins and Calcium Function in Health and Disease. June 1997. A29
54. Kleerekoper, Q., Liu, W., Sia, S., Li, M., Spyacopalous, L., Gagne, S., Sykes, B.D. and **Putkey, J.A.** NMR studies of drug binding to cardiac TnC and the relationship to the solution structure of cardiac TnC. 41st Annual Biophysical Society Meeting, March 1997, A331
55. Kleerekoper, Q., Liu, W., Choi, D., Sykes, B.D. and **Putkey, J.A.** Cardiac troponin C: Correlation of the solution structure with drug binding sites. 42nd Annual Biophysical Society Meeting, *Biophysical Journal* 74 (2): A143-A143 Part 2 Feb 1998.
56. Kleerekoper, Q., Liu, W. and **Putkey, J.A.** Cardiac troponin C: Correlating the solution structure with drug binding. The Third Annual Structural Biology Symposium, University of Texas Medical Branch at Galveston. April, 1998.
57. Zhang, Y., Waxham, M.N., Tsai, A.-L., and **Putkey, J.A.** (2000) A kinetic model for differential target activation by CaM. *Biophys. J.* 78: 71A.
58. Li., M.X., Spyracopoulos, L., Beier, N, **Putkey, J.A.**, Sykes, B.D. (2000) Interaction of cardiac troponin C with targets: Ca²⁺-sensitizer EMD 57033 and troponin I inhibitory peptide. *Biophys. J.* 78: 365A.
59. Ginsberg TR, **Putkey J.A.**, Waxham MN. (2000). RC3 (Neurogranin) regulates the availability of calmodulin in dendrites. *Soc. Neurosci. Abst.* 30.
60. Kleerekoper, Q., Hecht, J., **Putkey, J.A.** (2001) Disease-Causing Mutations in COMP prevent conformational stabilization by calcium. The Sixth Annual Structural Biology Symposium, University of Texas Medical Branch at Galveston.
61. Kleerekoper Q., Hecht J.T., **Putkey J.A.** (2002) Disease-causing mutations in COMP cause an unstructured Ca²⁺ binding domain. *Biophysical Journal* 82 (1): 316a.
62. Gaertner TR, **Putkey J.A.**, Waxham MN. (2002). Kinetics of calmodulin binding to RC3/neurogranin. *Soc. Neurosci. Abst.* 32.
63. Gaertner TR, **Putkey JA**, Waxham MN. (2002) Kinetics of calmodulin binding to RC3/neurogranin. *Soc. Neurosci. Abst.*
64. Putkey, J.A., Waxham, N.M. and Kleerekoper, Q. (2004) A novel role for IQ motif calmodulin binding proteins. *Biophysical Society Annual Meeting.*
65. Zhang, L, **Putkey, J.A.**, Kleerekoper, Q. and Hamilton S.L. (2004) Biochemical and structural characterization if interactions between CaM and the cytoplasmic domain of the L-type calcium channel. *Biophysical Society Annual Meeting.*

66. Kleerekoper, Q, **Putkey, J.A.** (2008) PEP-19 is an Intrinsically Disordered Regulator of Calmodulin Signaling. Sealy Structural Biology Symposium
67. Wang, X., Kleerekoper, Q., and **Putkey, J.A.** (2008) Structural and Dynamic Characterization of Ca²⁺-Calmodulin-PEP-19 complex by Solution NMR. Sealy Structural Biology Symposium
68. Wang, X., Kleerekoper Q.K., **Putkey, J.A.** (2009) Calcium binding and conformational properties of calmodulin complexed with PEP-19. (Abstract and Poster Presentation), Biophysical Society 53rd Annual Meeting, Boston, MA.
69. Wang, X., Kleerekoper, Q.K. **Putkey, J.A.** (2009). Calcium binding and conformational properties of calmodulin bound to PEP-19 (Abstract and Poster Presentation), John S. Dunn, Sr. Gulf Coast Consortium for Magnetic Resonance, Houston, TX.
70. Kleerekoper, Q.K., Xiong, L.W. Wang, X. and **Putkey, J.A.** (2009) PEP-19: An intrinsically disordered, acidic/IQ motif regulator of CaM signaling. Biophysical Society 53rd Annual Meeting, Boston, MA.
71. Xiong, L.W., Kleerekoper, Q.K. and **Putkey, J.A.** (2009) Structural and Calcium-binding Properties of Calmodulin Mutants at Calcium-binding Sites. Biophysical Society Meeting.
72. Wang, X., Kleerekoper, Xiong, L.W. Boehning, D.F. and **Putkey, J.A.** (2010). The novel acidic/IQ motif modulates calmodulin (Oral Presentation) John S. Dunn, Sr. Gulf Coast consortium for Magnetic resonance, Houston, TX.
73. Wang, X., Kleerekoper, Q.K. Putkey, J.A. (2011). Intrinsically disordered PEP-19 regulates calmodulin activity (Abstract), Biophysical Society 55th Annual Meeting, Baltimore, MD.
74. Wang, X., Kleerekoper, Q.K. **Putkey, J.A.** (2011). Structure-Function Paradigm for PEP-19 on Regulating Calmodulin Activities (Abstract and Poster Presentation), 52nd Experimental Nuclear Magnetic Resonance Conference, Pacific Grove, CA.
75. Wang, X., Boehning, D., and **Putkey, J.A.** (2013) Pep-19 is an intrinsically disordered regulator of calcium and calmodulin signaling. Biophysical Society 57th Annual Meeting, Philadelphia, PA
76. Hoffman, H., Wang, X., Cheung, M., **Putkey, J.A.**, and Waxham, M.N. (2014). The role of protein dynamics in calmodulin target recognition. Biophysical Society 58th Annual Meeting, San Francisco, CA.
77. **Putkey, J.A.**, Hoffman, L., Waxham, M.N. and Wang, X. (2014). An acidic sequence in neurogranin is required to modulate calcium binding to calmodulin. Biophysical Society 58th Annual Meeting, San Francisco, CA.
78. Wang, X. and **Putkey J.A.** (2015) NMR structure reveals novel interactions between intrinsically disordered PEP-19 and calmodulin. Biophysical Society 59th Annual Meeting, Baltimore, MD.
79. Putkey, J.A. and Wang, X. (2015) The molecular mechanism of intrinsically disordered regulators of calmodulin signaling. 19th International Symposium on Calcium Binding Proteins and Calcium Function in Health and Disease. Nashville, TN.
80. Wang, W. and Putkey, J.A. (2015) Solution Structure of PEP-19 bound to Apo Calmodulin. International Symposium of IDPbyNMR. Tuscany, Italy

