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CURRICULUM VITAE

Michael Barany, M.D., Ph.D.

HOME ADDRESS:

901 South Ashland Ave, Apt. 1110
Chicago, IL 60607-4092
Tel: (312) 666-9286

BUSINESS ADDRESS:

Department of Biochemistry & Molecular Genetics
University of Illinois at Chicago
College of Medicine
1819-53 West Polk Street (M/C 536)
Chicago, IL 60612-7334
Tel: (312) 996-7268
E-mail: mbarany@uic.edu

BORN:

October 29, 1921

FAMILY:

Wife, Kate Barany, Ph.D.
Professor Emerita of Physiology and Biophysics
University of Illinois at Chicago
College of Medicine

Children, George Barany, Ph.D.
Distinguished University Professor of Chemistry
University of Minnesota, Minneapolis

Francis Barany, Ph.D.
Professor of Microbiology
Cornell Medical College, New York

EDUCATION:

University of Budapest, Hungary	1945-1951
M.D. (General Medicine)	1951
University of Budapest, Hungary	1951-1956
Ph.D. (Biochemistry)	1956

PROFESSIONAL APPOINTMENTS:

Lecturer Institute of Biochemistry University of Budapest, Hungary	1951-1956
Intermediate Scientist Weizmann Institute Rehovoth, Israel	1957-1958
Associate Member Max Planck Institute for Physiology Heidelberg, Germany	1958-1960
Member and Head Division of Contractile Proteins Institute for Muscle Disease, Inc. New York, New York	1960-1974
Professor of Biochemistry College of Medicine University of Illinois at Chicago	1974-1992
Professor Emeritus of Biochemistry College of Medicine University of Illinois at Chicago	1992-present

AWARDS OF PROFESSIONAL SIGNIFICANCE:

Fellow of Belgian National Scientific Council, 1965.

The paper: "ATPase Activity of Myosin Correlated with Speed of Muscle Shortening", J. Gen. Physiol. 50, 197-218, 1967, was found to be one of five most-cited paper for this journal, Current Contents, June 4, 1984. It was cited about 1700 times at the end of 1997.

University Scholar, University of Illinois at Chicago, 1986.

Distinguished Faculty Award, College of Medicine University of Illinois at Chicago, 1986.

The Journal of the American Medical Association February 24, 1989, issue described my pioneering research in in vivo magnetic resonance spectroscopy.

Editor of the book "Biochemistry of Smooth Muscle Contraction", Academic Press, 1996.

Invited author for "History of Biochemistry: Personal Recollection", Vol. 6, Comprehensive Biochemistry, Vol. 41, Elsevier, 2000.

Elected Chairman of the Senior Physiologists Committee of the American Physiological Society

Invited author for "Honoring the 100th Birthday of John Edsall", Biophysical Chemistry, Vol. 100, 2003.

CURRENT PROFESSIONAL SOCIETY MEMBERSHIP:

American Chemical Society

American Physiological Society

American Society for Biochemistry and Molecular Biology

Biophysical Society

International Society for Magnetic Resonance in Medicine

PREVIOUS PROFESSIONAL ACTIVITIES:

Chairman and Speaker of three Symposia of the American Physiological Society, 1980-1990.

Member of the Senior Physiologists Committee of the American Physiological Society, 1987-2001.

Chairman of the Senior Physiologists Committee of the American Physiological Society, 2001-2003.

Section Editor of Textbook on Line of the Biophysical Society, 1998 - 2002

Author of the Teaching Home page, Biochemistry of Muscle Contraction, 1997-current

President of Society of University Scholars, University of Illinois at Chicago

Referee to the:

American Journal of Physiology
Magnetic Resonance in Medicine

Referee of abstracts submitted to Meetings of the International
Magnetic Resonance Society

Ad Hoc Member

National Heart Lung Blood Institute, Research Review Committee A

Member of the Physiological Chemistry Research
Committee of the American Heart Association.

Member of Research Committee and Fellowship Committee
of Chicago Heart Association

Member of Chicago Heart Association Research Council

Cochairman of the Contractility Group of the Biophysical Society

Member of the Editorial Board of the Journal of Mechanochemistry and Cell Motility

Member of the Editorial Board of Molecular Physiology

Consultant of Chicago College of Osteopathic Medicine,
NMR Laboratory, and Southern Illinois University, Physiology

PREVIOUS UNIVERSITY SERVICE:

Department:

Member of Advisory Committee
Member of Graduate Committee
Chairman of Graduate Committee

College:

Member of Committee on Research
Member of Medical Center Senate
Member of Committee on Library
Member of Committee on Committees
Member of Committee on Faculty Promotions
Member of NMR Laboratory Advisory Committee, RRC
Member of Magnetic Resonance Center Advisory Committee
Member of Search Committee for Director of MRI Center
Member of Distinguished Award Committee

Campus:

Member of University Scholar Committee

Advisor to two medical students:

Micah Young & Stephen Hwang

PREVIOUS TEACHING:

First Year Medical Students

BC-516, Biochemistry and Physiology of Muscle Contraction

PREVIOUS Ph.D. STUDENTS (who received the degree)

Joseph Chalovich

George Sarmiento

Fred Homa

Vassilis Mougios

PREVIOUS POSTDOCTORAL FELLOWS: (at the University of Illinois, in chronological order))

Eric Gaetjens

Tyler C. Burt

Louis H. Schliselfeld

Assaf Steinschneider

Hedda Ribolow

John T. Barron

Stephen J. Kopp

Stephen R. Hager

Donald D. Doyle

David L. VanderMuelen

Ronald F. Ledvora

Mark Kester

Carlos Arus

Yen C. Chang

Sandor Csabina

Palmadai N. Venkatasubramanian

Nicolas Gate

Ferenc Erdodi

Aniko Rokolya

Erzsebet Polyak

Csaba Koncz

Laszlo Hegedus

PREVIOUS RESEARCH AREAS:

Mechanism of smooth muscle contraction with special emphasis on the role of protein phosphorylation in regulation of contraction.

Determination of the amino acid sequence of the phosphorylation site of smooth muscle myosin light chain.

In vivo magnetic resonance spectroscopy

PREVIOUS FUNDED RESEARCH PROJECTS: (at the University of Illinois)

<u>Sponsor</u>	<u>Title</u>	<u>Project Period</u>	<u>Direct Costs</u>
Institute for Muscle Disease	A Chemical Approach for Studying Muscle Disease and Muscle Function	03/01/74 - 12/31/74	53,810
Muscular Dystrophy Association	A Chemical Approach for Studying Muscle Disease	07/01/80 - 06/30/81	77,378
		07/01/81 - 06/30/82	83,646
		07/01/82 - 06/30/83	66,667
		07/01/83 - 06/30/84	70,116
		07/01/84 - 06/30/85	73,271
Muscular Dystrophy Association	Nuclear Magnetic Resonance Studies on Muscle Disease	07/01/85 - 06/30/86	44,818
Muscular Dystrophy Association	Magnetic Resonance of Human Muscle Diseases	07/01/86 - 06/30/87	46,300
		07/01/87 - 06/30/88	46,300
		07/01/88 - 06/30/89	30,000

Shriner's Hospital	Protein Phosphorylation and Phospholipid Metabolism in Cerebral Palsy	01/01/82 - 12/31/82	24,070
		01/01/83 - 12/31/83	25,995
		01/01/84 - 12/31/84	28,071
Council for Tobacco Res.	Effect of Drugs on Membranes of Live Tissues	07/01/86 - 06/30/87	25,000
		07/01/87 - 06/30/88	25,000
		07/01/88 - 06/30/89	40,419
NIH	Protein Phosphorylation in Muscle	06/01/80 - 05/31/81	32,471
		09/01/82 - 08/31/83	43,115
		06/01/83 - 05/31/84	46,956
		09/01/84 - 08/31/85	59,726
		09/01/86 - 08/31/87	54,595
		09/01/87 - 08/31/88	65,761
		09/01/88 - 08/31/89	67,705
		09/01/89 - 08/30/94	404,433
University of IL	University Scholar Award	09/01/86 - Indefinite	30,000

PREVIOUS FELLOWSHIPS:

Muscular
Dystrophy
Association

for Mark Kester	Studies on the Role of Plasmalogens in Muscular Dystrophies	07/01/80 - 06/30/81	16,000
		07/01/81 - 06/30/82	17,000
		07/01/82 - 06/30/83	18,500
for Carlos Arus	Proton Nuclear Magnetic Resonance of Human Muscle	07/01/84 - 06/30/85	19,000
		07/01/85 - 06/30/86	20,000

PUBLICATIONS:

164 papers, 211 abstracts, 26 reviews - book chapters, 1 book editorship.

PAPERS PUBLISHED

1. Barany, M., and Biro, N.A. (1950). Enzymatic Studies on the Bound-ATP and ADP of Actin. (in Hungarian) Kiserletes Orvostudomány 2, 446-449.
2. Biro, N.A., Barany, M. and Gardos, G. (1951). The Interaction of Actomyosin and ATP. (in Hungarian) Kiserletes Orvostudomány 3, 218-227.

3. Biro, N.A., and Barany M. (1951). The Determination of the Nucleotides of Actin. (in Hungarian) Kiserletes Orvostudomány 3, 454-455.
4. Barany, M., Biro, N.A., and Molnar, J. (1954). Über die Reaktion zwischen Aktin und zweiwertigen Kationen. Acta Physiol. Acad. Sci. Hung. 5, 63-78.
5. Barany, M., Biro, N.A., Molnar, J., and Straub, F.B. (1954). Darsteellung enzymfreien Aktins durch Umfallung mit Magnesium. Acta Physiol. Acad. Sci. Hung. 5, 369-381.
6. Barany, M., Spiro, J., Koteles, G., and Nagy, E. (1956). Untersuchung der Aktin-Aktinbindung I. Die Rolle der SH- und NH₂-Gruppen. Acta Physiol. Acad. Sci. Hung. 10, 145-158.
7. Barany, M., Spiro, J., Koteles, G., and Nagy, E. (1956). Untersuchung der Aktin-Aktinbindung II. Die Schutzwirkung von ATP gegenüber depolymerisierenden Mitteln. Acta Physiol. Acad. Sci. Hung. 10, 159-170.
8. Barany, M. (1956). Studies on the Actin-Actin Bonding. Biochim. Biophys. Acta 16, 560-562.
9. Barany, M., Koteles, G., Nagy, E. and Spiro, J. (1956). A Relationship between the Mg⁺⁺-Binding and Precipitation of Actin. (in Hungarian) Kiserletes Orvostudomány 8, 491-497.
10. Barany, M., Barany, K., and Guba, F. (1957). Preparation of Actin without Extraction of Myosin. Nature 179, 818-819.
11. Barany, M., Barany, K., Guba, F., Koteles, G. and Nagy, E. (1957). Über den Zustand des Aktins im Muskel. Acta Physiol. Acad. Sci. Hung. 11, 145-164.
12. Barany, M. (1959). Studies on the Functional Sulfhydryl Groups of Myosin and Actin. Symposium on Sulfur in Proteins, Falmouth, Mass., U.S.A. Academic Press, New York, 317-335.
13. Barany, M. and Barany, K. (1959). Studies on "Active Centers" of L-Myosin. Biochim. Biophys. Acta 35, 293-309.
14. Barany, M. and Barany, K. (1959). Giftwirkungen auf die Kartoffel-Apyrase. Biochim. Biophys. Acta 35, 544-545.
15. Barany, M., and Jaisle, F. (1960). Kontraktionszyklus und Interaktion zwischen Aktin und L-Myosin unter der Wirkung spezifischer Interaktions - Inhibitoren. Biochem. Biophys. Acta 41, 192-203.

16. Barany, M. and Barany, K. (1960). Polyelektrolyte als Interaktions-Inhibitoren die Bedeutung von Ca^{++} und Mg^{++} für die Aktin-Myosin Interaktion. Biochim. Biophys. Acta **41**, 204-216.
17. Barany, M., Barany K., and Trautwein, W. (1960). Die Hemmung der Aktin-Myosin-Interaktion in lebenden und extrahierten Muskeln durch Urea. Biochim. Biophys. Acta **45**, 317-335.
18. Barany, M., Nagy, B., Finkelman, F., and Chrambach, A. (1961). Studies on the Removal of the Bound Nucleotide of Actin. J. Biol. Chem. **236**, 2917-2925.
19. Chrambach, A., Barany, M., and Finkelman, F. (1961). The Bound Calcium of Actin. Arch. Biochem. Biophys. **93**, 456-457.
20. Barany, M., Finkelman, F., and Antony, T.T. (1962). Studies on the Bound Calcium of Actin. Arch Biochem. Biophys. **98**, 28-45.
21. Barany, M. and Finkelman, F. (1962). The Lability of the F-Actin-Bound Calcium under Ultrasonic Vibration. Biochim. Biophys. Acta **63**, 98-105.
22. Barany, K., Barany, M., Oppenheimer, H. and Antony, T.T. (1963). Effects of Ultrasonics on the size and Shape of L-Myosin and the Meromyosins. Biochim. Biophys. Acta **74**, 551-554.
23. Barany, M., Finkelman, F. (1963). The Exchange of the F-Actin-Bound ADP. Biochim. Biophys. Acta **78**, 175-195.
24. Barany, M., Barany, K. and Oppenheimer, H. (1963). Effect of Ultrasonics on the Adenosine Triphosphatase Activity and Actin-Binding Ability of L-Lyosin and Heavy Meromyosin. Nature **199**, 694-695.
25. Barany, M., Koshland, D.E., Jr., Springhorn, S.S., Finkelman F. and Antony, T.T. (1964). Adenosine Triphosphate Cleavage During the G-Actin to F-Actin Transformation and the Binding of Adenosine Diphosphate to F-Actin. J. Biol. Chem. **239**, 1917-1919.
26. Barany, M., Gaetjens, E., Barany, K. and Karp, E. (1964). Comparative Studies of Rabbit Cardiac and Skeletal Myosins. Arch. Biochem. Biophys. **106**, 280-293.
27. Gaetjens, E., Antony, T.T. and Barany, M. (1964). Modification of L-Myosin by Disulfide-Sulfhydryl Interchange Reaction. Biochim. Biophys. Acta **86**, 554-566.
28. Gaetjens, E., Cheung, H.S. and Barany, M. (1964). The Absence of Free NH_2 -Terminal Residues in L-Myosin. Biochim. Biophys. Acta **93**, 188-190.

29. Barany, M., Barany, K., Edelstein, E., and Volpe, A. (1965). Studies on the Inhibition of Muscular Activity in the Presence of Urea. Pflungers Archiv. Ges. Physiol. 282, 135-156.
30. Barany, M., Barany, K., Volpe, T., and Rechard, T. (1965). Myosin of Fast and Slow Muscles of the Rabbit. Arch. Biochem. Biophys. 109, 185-191.
31. Barany, M., Tucci, A.F., Barany, K., Volpe, T., and Rechard, T. (1965). Myosin of Newborn Rappits. Arch. Biochem. Biophys. 111, 727.
32. Gaetjens, E. and Barany, M. (1966). N-Acetylasparic Acid in G-Actin. Biochim. Biophys. Acta 117, 176-183.
33. Barany, M., Barany, K., Gaetjens, E., and Bailin, G. (1966). Chicken Gizzard Myosin. Arch. Biochem. Biophys. 113, 205-221.
34. Barany, M. and Barany, K. (1966). Myosin from the Striated Adductor Muscle of Scallop (Pecten Arradians). Biochem. Z. 345, 37-56.
35. Barany, M., Tucci, A.F., and Conover, T.E. (1966). The Removal of the Bound ADP of F-Actin. J. Mol. Biol. 19, 483-502.
36. Conover, T.E. and Barany, M. (1966). The Absence of a Myosin-Like Protein in Liver Mitochondria. Biochim. Biophys. Acta 127, 235-238.
37. Barany, M., Gaetjens, E. and Barany, K. (1966). Myosin in Hereditary Muscular Dystrophy of Chickens. Ann. N.Y. Acad. Sci. 138, 360-366.
38. Bailin, G. and Barany, M. (1967). Studies on Actin-Actin and Actin-Myosin Interaction. Biochim. Biophys. Acta 140, 208-221.
39. Barany, M. (1967). ATPase Activity of Myosin Correlated with Speed of Muscle Shortening. J. Gen. Physiol. 50, 197-216.
40. Barany, M., Conover, T.E., Schliselfeld, L.H., Gaetjens, E., and Goffart, M. (1967). Relation of Properties of Isolated Myosin of the Intact Muscles of the Cat and Sloth. European J. Biochem. 2, 156-164.
41. Gaetjens, E., Barany, K., Bailin, G., Oppenheimer, H., and Barany, M. (1968). Studies on the Low Molecular Weight Protein Components in Rabbit Skeletal Myosin. Arch. Biochem. Biophys. 123, 82-96.
42. Schliselfeld, L.H. and Barany, M. (1968). The Binding of Adenosine Triphosphate Myosin. Biochemistry 7, 3206-3213.

43. Bailin, G., and Barany, M. (1968). The Reaction of Myosin with 1-Fluoro-2,4-dinitrobenzene. Biochim. Biophys. Acta 168, 282-297.
44. Barany, M., Barany, K. and Bailin, G. (1968). Reactivity of Actomyosin and Myosin with 1-Fluoro-2,4-dinitrobenzene in vivo and in vitro. Biochim. Biophys. Acta 168, 298-310.
45. Barany, M., Bailin, G., and Barany, K. (1969). Reaction of Myosin with 1-Fluoro-2,4-dinitrobenzene at Low Ionic Strength. J. Biol. Chem. 244, 648-657.
46. Barany, M. and Barany, K. (1969). Adenosine Triphosphate-dependent Reaction of 1-Fluoro-2,4-dinitrobenzene with Various Myosins. J. Biol. Chem. 244, 5206-5212.
47. Tada, M., Bailin, G., Barany, K. and Barany, M. (1969). Proteolytic Fragmentation Bovine Heart Heavy Meromyosin. Biochemistry 8, 4842-4850.
48. Schliselfeld, L.H., Conover, T.E., and Barany, M. (1970). Preparation and Properties of a Complex of Adenosine Triphosphate with Myosin, Actomyosin, and Subfragment 1. Biochemistry 9, 1133-1139.
49. Barany, M., and Barany, K. (1970). Change in the Reactivity of Myosin during Muscle Contraction. J. Biol. Chem. 245, 2717-2721.
50. Barany, M., Barany, K., and Gaetjens, E. (1971). Change in the Reactivity of the Head Part of Myosin during Contraction of Frog Muscle. J. Biol. Chem. 246, 3241-3249.
51. Barany, M., and Close, R.I. (1971). The Transformation of Myosin in Cross-innervated Rat Muscles. J. Physiol. 213, 455-474.
52. Bailin, G., and Barany, M. (1971). Chicken Gizzard Subfragment 1. Biochim. Biophys. Acta 236, 292-302.
53. Bailin, G., and Barany, M. (1972). Thiolytic of Dinitrophenylated Myosin with Restoration of Adenosine Triphosphatase Activity. J. Biol. Chem. 247, 715-721.
54. Barany, M. and Barany, K. (1972). A Proposal for the Mechanism of Contraction Intact Frog Muscle. Cold Spring Harbor Symposia on Quantitative Biology, 37 157-167.
55. Bailin, G. and Barany, M. (1972). A Simple Procedure for the Preparation of Tropomyosin-free F-actin. J. Mechanochem. and Cell Motility 1, 189-190.
56. Bailin, G. and Barany, M. (1973). Evidence for the Role of Myosin in Calcium Sensitization of Actomyosin. J. Biol. Chem. 248, 373-374.

57. Barany, M., and Barany, K. (1973). The Interaction of Myosin, Actin and ATP in the Intact Muscle. J. Mechanochem. and Cell Motility 2, 51-59.
58. Barany, M., Barany, K., and Gaetjens, E. (1973). Analysis of Muscle Contraction Tritium-Incorporation. J. Biol. Chem. 248, 5389-5394.
59. Holtzer, S., Barany, M., and Holtzer, H. (1974). Protein-bound ADP in Myogenic and Chondrogenic Cells. Differentiation 2, 29-42.
60. Barany, M., Barany, K., Gaetjens, E. and Horvath, B.Z. (1974). Studies on the Phosphorylation-Dephosphorylation of Troponin-Tropomyosin during Muscle Contraction and Applications as a Probe of Dystrophic Chicken Muscle. Exploratory Concepts in Muscular Dystrophy II., Excerpta Medica, Amsterdam, 451-462.
61. Barany, M., Barany, K., Burt, C.T., Glonek, T. and Myers, T.C. (1975). Structural Changes in Myosin During Contraction and the State of ATP in the Intact Frog Muscle. J. Supramol. Struct. 3, 125-140.
62. Burt, C.T., Glonek, T. and Barany, M. (1976). Analysis of Phosphate Metabolites, the Intracellular pH, and the State of Adenosine Triphosphate in Intact Muscle by Phosphorus Nuclear Magnetic Resonance. J. Biol. Chem. 251, 2584-2591.
63. Burt, C.T., Glonek, T. and Barany, M. (1976). ³¹P Nuclear Magnetic Resonance Detection of Unexpected Phosphodiester in Muscle. Biochemistry 15, 4850-4853.
64. Burt, C.T., Glonek, T. and Barany, M. (1977). Analysis of Living Tissue by Phosphorus-31 Magnetic Resonance. Science 195, 145-149.
65. Ribolow, H., Barany, K., Steinschneider, A. and Barany, M. (1977). Lack of Phosphate Incorporation into TN-I in Live Frog Muscle. Arch. Biochem. Biophys. 179, 81-85.
66. Ribolow, H., Barany, K., Steinschneider, A. and Barany, M. (1977). Phosphorylation of Tropomyosin in Live Frog Muscle. Arch. Biochem. Biophys. 179, 718-720.
67. Barany, M., Barany, K., Gaetjens, E. and Steinschneider, A. (1977). Isolation of Phosphorylated Acid Chloroform-Methanol Soluble Proteins from Live Frog Muscle. Biochim. Biophys. Acta 491, 387-397.
68. Chalovich, J.M., Burt, C.T., Cohen, S.M., Glonek, T. and Barany, M. (1977). Identification of an Unknown ³¹P Nuclear Magnetic Resonance from Dystrophic Chicken as L-Serine Ethanolamine Phosphodiester. Arch. Biochem. Biophys. 182, 683-689.
69. Barany, K. and Barany, M. (1977). Phosphorylation of the 18,000-Dalton Light Chain of Myosin During a Single Tetanus of Frog Muscle. J. Biol. Chem. 252, 4752-4754.

70. Barany, M., Burt, C.T., Labotka, R.J., Danon, M.J., Glonek, T., Huncke, B.H. (1977). Application of ^{31}P NMR for the Study of Diseased Muscle. Fifth International Scientific Conference of the Muscular Dystrophy Association, Excerpta Medica, Amsterdam, pp. 337-340.
71. Glonek, T., Burt, C.T., Labotka, R.J., Danon, M.J., Vuolo, M.D., and Barany, M. (1977). Phosphorus-31 Nuclear Magnetic Resonance Spectroscopic Analysis of Intact Tissue. Benjamin Goldberg Symposium on Engineering in Health Sciences, Univ. Illinois Medical Center, Chicago, pp. 214-235.
72. Mak, A., Smillie, L.B., and Barany, M. (1978). Specific Phosphorylation at Serine-283 of α -Tropomyosin from Frog Skeletal and Rabbit Skeletal and Cardiac Muscle. Proc. Natl. Acad. Sci. USA 75, 3588-3592.
73. Chalovich, J.M., Burt, C.T., Danon, M.J., Glonek, T., and Barany, M. (1979). Phosphodiesterases in Muscular Dystrophies. Ann. N.Y. Acad. Sci. 317, 649-668.
74. Burt, C.T., Cohen, S.M. and Barany, M. (1979). Analysis of Intact Tissue with ^{31}P NMR. Ann. Rev. Biophys. Bioeng. 8, 1-25.
75. Barany, K., Barany, M., Gillis, J.M., and Kushmerick, M.J. (1979). Phosphorylation-Dephosphorylation of the 18,000-Dalton Light Chain of Myosin during the Contraction-Relaxation Cycle of Frog Muscle. J. Biol. Chem. 254, 3617-3623.
76. Barron, J.T., Barany, M., and Barany, K. (1979). Phosphorylation of the 20,000-Dalton Light Chain of Myosin in Intact Arterial Smooth Muscle in Rest and in Contraction. J. Biol. Chem. 254, 4954-4956.
77. Kopp, S.J., and Barany, M. (1979). Phosphorylation of the 19,000-Dalton Light Chain of Myosin in Perfused Rat Heart under the Influence of Negative and Positive Inotropic Agents. J. Biol. Chem. 254, 12007-12012.
78. Barany, M. and Barany, K. (1980). Phosphorylation of Myofibrillar Proteins. Ann. Rev. Physiol. 42, 275-292.
79. Chalovich, J.M., and Barany, M. (1980). Serine Ethanolamine Phosphate in Avian Muscular Dystrophy: Mechanism of Accumulation in Dystrophic Muscle and Relationship to Phospholipid Synthesis. Arch. Biochem. Biophys. 199, 615-625.
80. Barany, K., Barany, M., Gillis, J.M., and Kushmerick, M.J. (1980). Myosin Light Chain Phosphorylation during the Contraction Cycle of Frog Muscle. Federation Proc. 39, 1547-1551.
81. Kopp, S.J., and Barany, M. (1980). Influence of Isoproterenol and Calcium on Cadmium- or Lead-Induced Negative Inotropy Related to Cardiac Myofibrillar Protein Phosphorylations in Perfused Rat Heart. Toxicol. Appl. Pharmacol. 55, 8-17.

82. Kopp, S.J., Barany, M., Erlanger, M. Perry, E.F., and Perry, H.M., Jr. (1980). The Influence of Chronic Low Level Cadmium and/or Lead Feeding on Myocardial Contractility Related to Phosphorylation of Cardiac Myofibril Proteins. Toxicol. Appl. Pharmacol. 54, 48-56.
83. Kopp, S.J., Perry, Jr. H.M., Glonek, T., Erlanger, M., Perry, E.F., Barany M., and D'Agrosa, L.S. (1980). Cardiac Physiologic/Metabolic Changes Following Chronic Low Level Heavy Metal Feeding. Am. J. Physiol. 239, H22-H30.
84. Kopp S.J., Glonek, T., Erlanger, M., Perry, E.F., Barany, M., and Perry, H.M., Jr. (1980). Cadmium and Lead Effects on Myocardial Function and Metabolism. J. Environ. Path. Toxicol. 4, 205-227, 1980.
85. Giometti, C.S., Barany, M., Danon, M.J., and Anderson, N.G. (1980). Muscle Protein Analysis. II. Two-Dimensional Electrophoresis of Normal and Diseased Human Skeletal Muscle. Clin. Chem. 26, 1152-1155.
86. Barron, J.T., Barany, M., Barany, K., and Storti, R.V. (1980). Reversible Phosphorylation and Dephosphorylation of the 20,000-dalton Light Chain of Myosin during the Contraction-Relaxation-Contraction Cycle of Arterial Smooth Muscle. J. Biol. Chem. 255, 6238-6244.
87. Kopp, S.J., Glonek, T., Erlanger, M., Perry, E.F., Barany, M., and Perry H.M., Jr. (1980). Altered Metabolism and Function of Rat Heart Following Chronic Low Level Cd/Pb Feeding. J. Mol. Cell. Cardiol. 12, 1407-1425.
88. Janis, R.A., Barany, K., Barany, M., and Sarmiento, G.J. (1981). Association between Myosin Light Chain Phosphorylation and Contraction of Rat Uterine Smooth Muscle. Mol. Physiol. 1, 3-11.
89. Schliselfeld, L.H., Barany, M., Danon, M.J., Abraham, E., and Kleps, R.A. (1981). Lysolecithin Phospholipase Activities of Muscles from Control and Duchenne Muscular Dystrophy Subjects. Mol. Physiol. 1, 61-69.
90. Hager, S.R., Barany, M., and Barany, K. (1981). Protein Phosphorylation in Hereditary Dystrophic Muscle. Mol. Physiol. 1, 133-144.
91. Barany, M., Barany, K., Barron, J.T. Kopp, S.J., Janis, R.A., Doyle, D.D., Hager, S.R., Schlesinger, D.H., Homa, F. and Sayers, S.T. (1981). Protein Phosphorylation in Live Muscle. In Cold Spring Harbor Conferences on Cell Proliferation, vol. 8: Protein Phosphorylation (O.M. Rosen and E.G. Krebs eds.), pp 869-886.
92. Barany, M. and Barany, K. (1981). Protein Phosphorylation in Cardiac and Vascular Smooth Muscle. Am. J. Physiol. 241, H117-H128.

93. Doyle, D.D., Chalovich, J.M., and Barany, M. (1981). Natural Abundance ^{13}C NMR Spectra of Intact Muscle. FEBS Lett. **131**, 147-150.
94. Hager, S.R., Barany, M., Barany, K., and Homa, F.L. (1982). Protein Phosphorylation during Contraction of Chicken Slow and Fast Skeletal Muscles. Mol. Physiol. **2**, 121-132.
95. Barany, M., Doyle, D.D., Graff, G., Westler, W.M. and Markley, J.L. (1982). Changes in the Natural Abundance ^{13}C NMR Spectra of Intact Frog Muscle upon Storage and Caffeine-Contracture. J. Biol. Chem. **257**, 2741-2743.
96. Doyle, D.D. and Barany, M. (1982). Quantitation of Lactic Acid in Caffeine-Contracted and Resting Frog Muscle by High Resolution Natural Abundance ^{13}C NMR. FEBS Lett. **140**, 237-240.
97. Barany, K., VanderMeulen D.L., Ledvora, R.F. and Barany, M. (1982). Selective Phosphorylation of Myosin Light in Intact Skeletal Muscle. Arch. Biochem. Biophys. **217**, 392-396.
98. Barany, K. and Barany, M. (1982). Myosin Light Chain Phosphorylation in Frog Heart. Biochim. Biophys. Acta **706**, 136-140.
99. Barany, K., Barany, M., Hager, S.R., and Sayers, S.T. (1983). Myosin Light Chain and Membrane Protein Phosphorylation in Various Muscles. Federation Proc. **42**, 27-32.
100. Barany, K., Sayers, S.T., DiSalvo, J., and Barany, M. (1983). Two Dimensional Electrophoretic Analysis of Myosin Light Chain Phosphorylation in Heart. Electrophoresis **4**, 138-142.
101. Barany, K., Ledvora, L.F., VanderMeulen, D.L. and Barany, M. (1983). Myosin Light Chain Phosphorylation during Contraction of Chicken Fast and Slow Skeletal Muscles. Arch. Biochem. Biophys. **225**, 692-703.
102. Ledvora, R.F., Barany, K., VanderMeulen, D.L., Barron, J.T., and Barany, M. (1983). Stretch-Induced Phosphorylation of the 20,000-Dalton Light Chain of Myosin in Arterial Smooth Muscle. J. Biol. Chem. **258**, 14080-14083.
103. Homa, F.L., and Barany, M. (1983). Phosphorylation of a 25,000-Dalton Protein in Slow and Fast Muscles of the Chicken. Comp. Biochem. Physiol. **76B**, 801-810.
104. Kester, M., Schliselfeld, L.H., and Barany, M. (1984). Minor Phospholipids in Human Muscle. Mol. Physiol. **5**, 71-84.

105. Barany, M., Doyle, D.D., Graff, G., Westler, W.M., and Markley, J.L. (1984). Natural Abundance ^{13}C NMR Spectra of Human Muscle, Normal and Diseased. Magna. Res. Med. **1**, 30-43.
106. Arus, C., Barany, M., Westler, W.M., and Markley, J.L. (1984). Proton Nuclear Magnetic Resonance of Human Muscle Extracts. Clinical Physiology and Biochemistry **2**, 49-55.
107. Arus, C., Barany, M., Westler, W.M., and Markley, J.L. (1984). ^1H NMR of Intact Muscle at 11 Tesla. FEBS Lett. **165**, 231-237.
108. Arus, C., Barany, M., Westler, W.M., and Markley, J.L. (1984). ^1H NMR of Intact Tissues at 11.1 T. J. Magn. Res. **57**, 519-525.
109. Kester, M., Ledvora, R.F., and Barany, M. (1984). The Potentiation of Arterial Contraction with Platelet Activating Factor. Pflugers Arch. Eur. J. Physiol. **400**, 200-202.
110. Barany, M. (1984). ATPase Activity of Myosin Correlated with Speed of Muscle Shortening. Week's Citation Classic, Current Content **27**, 16.
111. Ledvora, R.F., Barany, M., and Barany, K. (1984). Myosin Light Chain Phosphorylation and Tension Development in Stretch-Activated Arterial Smooth Muscle. Clinical Chem. **30**, 2063-2068.
112. Schliselfeld, L.H. and Barany, M. (1985). Hydrolysis of Phosphatidylethanolamine, Phosphatidylcholine and Glycerophosphorylcholine in Skeletal Muscle. Molecular Physiol. **7**, 165-176.
113. Arus, C., Chang, Y.C., and Barany, M. (1985). The Separation of Phosphocreatine from Creatine, and pH Determination in Frog Muscle by Natural Abundance ^{13}C -NMR. Biochim. Biophys. Acta **844**, 91-93.
114. Barany, M., Arus, C., and Chang, Y.C. (1985). Natural Abundance ^{13}C NMR of Brain. Magn. Res. Med. **2**, 289-295.
115. Barany, K., Ledvora, R.F., Mougios, V., and Barany, M. (1985). Stretch-induced Myosin Light Chain Phosphorylation and Stretch-Release-Induced Tension Development in Arterial Smooth Muscle. J. Biol. Chem. **260**, 7126-7130.
116. Barany, M., Chang, Y.C., Arus, C., Rustan, T., and Frey, W.H. (1985). Increased Glycerol 3-Phosphorylcholine in Postmortem Alzheimer's Brain. Lancet, **i**, 517.
117. Arus, C., Chang, Y.C., and Barany, M. (1985). N-Acetylaspartate as an Intrinsic Thermometer for ^1H NMR of Brain Slices. J. Magn. Res. **63**, 376-379.

118. Arus, C., Chang, Y.C., and Barany, M. (1985). Proton Nuclear Magnetic Resonance Spectra of Excised Rat Brain. Assignment of Resonances. Physiol. Chem. Phys. Med. NMR **17**, 23-33.
119. Chang, Y.C., Arus, C., Barany, M. (1985). Characterization of the Broad Resonance in ^{31}P NMR Spectra of excised Rat Brain. Physiol. Chem. Phys. Med. NMR **17**, 143-154.
120. Barany, M., Chang, Y.C., and Arus, C. (1985). The Effect of Halothane on the Natural Abundance ^{13}C NMR Spectra of Excised Rat Brain. Biochemistry **24**, 7911-7917.
121. Barany, K., Csabina, S., and Barany, M. (1985). In Phosphorylation of the 20,000-Dalton Myosin Light Chain in Rat Uterus. Advances in Protein Phosphatases (Merlevede, W. and DiSalvo, J. eds.) Vol II, Leuven University Press, Leuven, Belgium, pp.37-58.
122. Arus, C. and Barany, M. (1986). Application of High Field ^1H NMR Spectroscopy for the Study of Perfused Amphibian and Excised Mammalian Muscles. Biochim. Biophys. Acta **886**, 411-424.
123. Arus, C., Westler, W.M., Barany, M., and Markley, J.L. (1986). Observation of the Terminal Methyl Group in Fatty Acids of the Linolenic Series by Means of a New ^1H NMR Pulse Sequence Providing Spectral Editing and Solvent Suppression. Application to Frog Muscle and Excised Rat Brain. Biochemistry **25**, 3346-3351.
124. Venkatasubramanian, P.N., Arus, C., and Barany, M. (1986). Two-Dimensional Proton Magnetic Resonance of Human Muscle Extracts. Clinical Physiology and Biochemistry **4**, 285-292.
125. Csabina, S., Mougios, V., Barany, M., and Barany, K. (1986). Characterization the Phosphorylatable Myosin Light Chain in Rat Uterus. Biochim. Biophys. Acta **871**, 311-315.
126. Csabina, S., Barany, M., and Barany, K. (1986). Stretch-Induced Myosin Light Chain Phosphorylation in Rat Uterus. Arch. Biochem. Biophys. **249**, 374-381.
127. Mougios, V. and Barany, M. (1986). Isoforms of the Phosphorylatable Myosin Light Chain in Arterial Smooth Muscle. Biochim. Biophys. Acta **872**, 305-308.
128. Barany, M. and Venkatasubramanian, P.N. (1986). A Simple Procedure for NMR Measurements of Intra- and Extracellular Sodium in Intact Tissues. Physiological Chemistry and Physics and Medical NMR **18**, 233-241.

129. Csabina, S., Barany, M., and Barany, K. (1987). Comparison of Myosin Light Chain Phosphorylation in Uterine and Arterial Smooth Muscles. Comp. Biochem. Physiol. **87B**, 271-277.
130. Barany, M. and Venkatasubramanian, P.N. (1987). Estimation of Tissue Phospholipids by Natural Abundance ^{13}C NMR. Biochim. Biophys. Acta **923**, 339-346.
131. Barany, K., Csabina, S., deLanerolle, P. and Barany, M. (1987). Evidence for Isoforms of the Phosphorylatable Myosin Light Chain in Rat Uterus. Biochim. Biophys. Acta **911**, 369-371.
132. Barany, M., Mertz, G.T., Ivicic, J., Mok, E., Spigos, D.G. and Kleps, R.A. (1987). Surface Coil Holder for Signa. Magn. Reson. Med. **5**, 175-176.
133. Barany, M., Spigos, D.G., Mok, E., Venkatasubramanian, P.N., Wilbur, A.C., and Langer, B.G. (1987). High Resolution Proton Magnetic Resonance Spectroscopy of Human Brain and Liver. Magn. Reson. Imaging **5**, 393-398.
134. Erdodi, F., Barany, M., and Barany, K. (1987). Myosin Light Chain Isoforms and Their Phosphorylation in Arterial Smooth Muscle. Circulation Research, **61**, 898-903.
135. Venkatasubramanian, P.N., Mafee, M.F., and Barany, M. (1988). Quantitation of Phosphate Metabolites in Human Leg In Vivo. Magn. Reson. Med. **6**, 359-363.
136. Barany, M., Langer, B.G., Glick, R.P., Venkatasubramanian, P.N., Wilbur, A.C., and Spigos, D.G. (1988). In Vivo H-1 Spectroscopy in Humans at 1.5 T. Radiology **167**, 839-844.
137. Erdodi, F., Rokolya, A., DiSalvo, J., Barany, M., and Barany, K. (1988). Effect of Okadaic Acid on Phosphorylation-Dephosphorylation of Myosin Light Chain in Aortic Smooth Muscle Homogenate. Biochem. Biophys. Res. Commun. **153**, 156-161.
138. Erdodi, F., Rokolya, A., Barany, M., and Barany, K. (1988). Phosphorylation of the 20,000-Da Myosin Light Chain Isoforms of Arterial Smooth Muscle by Myosin Light Chain Kinase and Protein Kinase C. Arch. Biochem. Biophys. **266**, 583-591.
139. Mafee, M.F., Puklin, J., Barany, M., Cohen, S., and Wycliffe, N. (1988). MRI and In Vivo Proton Spectroscopy of the Lesions of the Globe. In Seminars in Ultrasound, CT and MR, vol. 9, W.B. Saunders Co., Philadelphia, pp. 59-71.
140. Barany, M., Venkatasubramanian, P.N., Mok, E., Siegel, I.M., Abraham, E., Wycliffe, N.D., and Mafee, M.F. (1989). Quantitative and Qualitative Fat Analysis in Human Leg Muscle of Neuromuscular Diseases by ^1H MR Spectroscopy In Vivo. Magn. Reson. Med. **10**, 210-226.

141. Barron, J.T., Barany, K., Barany, M., and Kopp, S.J. (1989). Effects of ATP Reduction on the Pattern of Force Development and Myosin Light Chain Phosphorylation in Intact Arterial Smooth Muscle. Biochim. Biophys. Acta **1010**, 278-282.
142. Erdodi, F., Rokolya, A., Barany, M., and Barany, K. (1989). Dephosphorylation Distinct Sites in Myosin Light Chain by Two Types of Aortic Smooth Muscle Phosphatase. Biochim. Biophys. Acta **1011**, 67-74.
143. Mafee, M.F., Barany, M., Gotsis, E.D., Dobben, G.D., Puklin, J., Chow, J., Wenig, B.L. (1989). Potential Use of In Vivo Proton Spectroscopy for Head and Neck Lesions. Radiologic Clinics of North America **27**, 243-254.
144. Barany, M., Siegel, I.M., Venkatasubramanian, P.N., Mok, E., Wilbur, A.C. (1989). In Vivo P-31 Spectroscopy of Human Leg Neuromuscular Diseases. Radiology **172**, 503-508.
145. Barany, M., and Venkatasubramanian, P.N. (1989). Volume-Selective Water-Suppressed Proton Spectra of Human Brain and Muscle In Vivo. NMR in Biomedicine **2**, 7-11.
146. Barany, K., Pato, M.D., Rokolya, A., Erdodi, F., DiSalvo, J., and Barany, M. (1989). Phosphorylation and Dephosphorylation of Distinct Sites of the 20,000 - Dalton Myosin Light Chain in Smooth Muscle. In Adv. Prot. Phosphatases (W. Merlevede and J. DiSalvo eds.) vol. 5, Leuven Univ. Press., Leuven, Belgium, pp. 517-534.
147. Siegel, I.M., Sahgal, V., and Barany, M. (1989). Focal Foot Dystonia: Two Cases Treated by Surgical Release. Journal of Neurological Rehabilitation **3**, 19-25.
148. Barany, K., Rokolya, A., and Barany, M. (1990). Analysis of Myosin Light Chain Phosphopeptides in Phorbol Dibutyrate-Contracted Artery. Biochim. Biophys. Acta **1035**, 105-108.
149. Barany, K., Rokolya, A., and Barany, M. (1990). Stretch Activates Myosin Light Chain Kinase in Arterial Smooth Muscle. Biochem. Biophys. Res. Commun. **173**, 164-171.
150. Barany, M., Rokolya, A., and Barany, K. (1991). Absence of Calponin Phosphorylation in Contracting or Resting Arterial Smooth Muscle FEBS Letters **279**, 65-68.
151. Rokolya, A., Barany, M., and Barany, K. (1991). Modification of Myosin Light Chain Phosphorylation in Sustained Arterial Muscle Contraction by Phorbol Dibutyrate. Biochim. Biophys. Acta **1057**, 276-280.

152. Barany, M., Rokolya, A., and Barany, K. (1991). Exchange of 20-kDa Myosin Light Chain - Bound Phosphate during Sustained Contraction of Arterial Smooth Muscle. Arch. Biochem. Biophys. 287, 199-203.
153. Barany, M., Polyak, E., and Barany, K. (1992). Protein Phosphorylation during the Contraction-Relaxation-Contraction Cycle of Arterial Smooth Muscle. Arch. Biochem. Biophys. 294, 571-578.
154. Barany, K., Polyak, E., and Barany, M. (1992). Protein Phosphorylation in Arterial Muscle Contracted by High Concentration of Phorbol Dibutyrate in the Presence and Absence of Ca^{2+} . Biochim. Biophys. Acta. 1134, 233-241.
155. Barany, K., Polyak, E., and Barany, M. (1992). Involvement of Calponin and Caldesmon in Sustained Contraction of Arterial Smooth Muscle. Biochem. Biophys. Res. Commun. 187, 847-852.
156. Sharma, R., Venkatasubramanian, P.N., Barany, M., and Davis, T.M. (1992). Proton Magnetic Resonance Spectroscopy of the Brain in Schizophrenic and Affective Patients. Schizophrenia Research 8, 43-49.
157. Barany, M., and Barany, K. (1993). Dissociation of Relaxation and Myosin Light Chain Dephosphorylation in Porcine Uterine Muscle. Arch. Biochem. Biophys. 305, 202-204.
158. Barany, M., and Barany, K. (1993). Calponin Phosphorylation Does not Accompany Contraction of Various Smooth Muscles. Biochim. Biophys. Acta. 1179, 229-233.
159. Barany, K., and Barany, M. (1995). Gel Electrophoretic Methods in the Separation of Structural Muscle Proteins. J. Chromatography A, 698, 301-332.
160. Barron, J.T., Barany, M., Gu, L., and Parrillo, J.E. (1997). Oxidation of Acetate and Octanoate and its Relation to Glucose Metabolism in Contracting Porcine Carotid Artery. Biochim. Biophys. Acta. 1332, 208-220.
161. Barron, J.T., Barany, M., Gu, L., and Parrillo, J.E. (1998). Metabolic Fate of Glucose in Vascular Smooth Muscle During Contraction Induced by Norepinephrine. Journal of Molecular and Cellular Cardiology, 30, 709-719.
162. Barany, M., Barron, J.T., Gu, L., and Barany, K. (2001). Exchange of the Actin-bound Nucleotide in Intact Arterial Smooth Muscle. J. Biol. Chem. 276, 48.398-48.403.
163. Barany, M., and Barany, K. (2003). The Impact of the Paper of Edsall and Mehl (1940) on Actin and Actomyosin Research. Biophysical Chemistry 100, 177-182..

164. Barany, M., and de Tombe, T. T. (2004). Rapid Exchange of Actin-bound Nucleotide in Perfused Rat Heart. Am. J. Physiol. Heart and Circ. Physiol. 286: H1394-H1401.

ABSTRACTS PRESENTED AT SCIENTIFIC MEETINGS

1. Barany, M., Biro, N.A. and Molnar, J. (1953). Die Spezifische Umfaltung des Aktins mit Magnesium. Acta Physiol. Acad. Sci. Hung. Suppl. 5, 9.
2. Harsany, G., Barany, M. and Sprio, J. (1955). Die Bindung der Alkalierd-metallionen durch Aktin. Acta Physiol. Acad. Sci. Hung. Suppl. 6, 71.
3. Barany, M., Harsanyi, G., Spiro, J. and Hoose, E. (1955). Die Wechselwirkung zwischen den Struktureiweißen der Gewebe und dem Calciumion. Acta Physiol. Acad. Sci. Hung. Suppl. 6, 72.
4. Barany, M., Spiro, J., Koteles, G. and Nagy, E. (1956). Untersuchung der Aktin-Aktinbindung. Acta Physiol. Acad. Sci. Hung. Suppl. 9, 5.
5. Barany, M. (1956). Chemical Nature of the Adenine-Nucleotide Binding-Site of Actin. (in Hungarian) Abstracts of the First Meeting of the Hungarian Society of Biological Chemists.
6. Barany, M. (1956). A Simple Method for Separation of G-Actin and F-Actin in Presence of Myosin. (in Hungarian) Abstracts of the Second Meeting of the Hungarian Society of Biological Chemists.
7. Barany, M., Barany, K., Guba, F., Koteles, G. and Nagy, E. (1957). Herstellung von Aktin ohne vorherige Myosinextraktion. Acta Physiol. Acad. Sci. Hung. Suppl. 11, 33.
8. Barany, M. (1958). Studies on the "Active Centers" of Myosin. Abstracts of the Fourth International Congress of Biochemistry p. 84, Vienna.
9. Barany, M., Nagy, B., Finkelman, F. and Chrambach, A. (1961). Studies on the Removal of the Bound Nucleotide of Actin. Federation Proc. 20, 298.
10. Barany, M. and Chrambach, A. (1962). Exchange of Bound Calcium of Actin. J. Gen. Physiol. 45, 589A.
11. Barany, M., Finkelman, F. and Antony, T.T. (1962). A Relationship between the Bound Calcium and the Bound Nucleotide of Actin. Federation Proc. 21, 316.
12. Barany, M., Finkelman, F., Young, J. and Reckard, T. (1963). The Exchange of the F-Actin-Bound ADP. Federation Proc. 22, 228.

13. Barany, K., Barany, M., Oppenheimer, H., Young, J. and Antony, T.T. (1963). Effects of Ultrasonics of L-Myosin and the Meromyosins. Federation Proc. 22, 351.
14. Gaetjens, E., Antony, T.T. and Barany, M. (1964). Modification of Myosin by Disulfide Compounds. Federation Proc. 23, 530.
15. Barany, M., Gaetjens, E., Barany, K. and Karp, E. (1964). Comparative Studies on Rabbit Cardiac and Skeletal Myosins. Federation Proc. 23, 260.
16. Barany, M., Gaetjens, E. and Karp, E. (1964). Comparison of the Effects of Di-thiodiglycolic Acid Dimethyl Ester on the Enzymatic Activities of Myosin, Actomyosin, and Myofibrils. Abstracts of the 8th Annual Meeting of the Biophysical, Chicago, Illinois.
17. Barany, M., Gaetjens, E. and Karp, E. (1964). Altered Ionic Strength Dependence Modified Myosin ATPase. Abstracts of Sixth International Congress of Biochemistry, New York, p. 644.
18. Soldo, A.T. and Barany, M. (1964). ATPase Activity of Aqueous Extracts, Myosin, Actomyosin and Myofibrils of Chick Embryo Muscle. Abstracts of Sixth International Congress of Biochemistry, New York, p. 667.
19. Barany, M., Barany, K., Reckard, T. and Volpe, A. (1965). Comparison of Myosin of Fast and Slow Muscles of the Rabbit. Abstracts of the Biophysical Society 9th Annual Meeting, San Francisco, California, p. 129.
20. Barany, M., Soldo, A.T., Barany, K. and Volpe, A. (1965). Scallop Myosin. Federation Proc. 24, 400.
21. Gaetjens, E. and Barany, M. (1966). N-Acetylaspartic Acid in G-Actin. Federation Proc. 25, 223.
22. Barany, M., Barany, K., Gaetjens, E. and Bailin, G. (1966). The Activation of Smooth Muscle Myosin Adenosine Triphosphatase. Abstracts of the Biophysical Society 10th Annual Meeting, Boston, Massachusetts, p. 37.
23. Barany, M., Tucci, A.F. and Conover, T.E. (1966). The Removal of the Bound ADP of F-Actin. Federation Proc. 25, 466.
24. Barany, M., Conover, T.E., Barany, K. and Goffart, M. (1967). Relation of Contraction Time to ATPase Activity of Myosin in Muscles of Cat and Sloth. Federation Proc. 26, 728.
25. Bailin, G. and Barany, M. (1967). Role of -SH Groups of Actin in Interaction of Actin and Myosin. Federation Proc. 26, 499.

26. Barany, M. (1967). Relation between ATPase Activity of Myosin and Speed of Muscle Contraction. 7th Intern. Congr. Biochem., Tokyo, Symp. VI - 3, 319.
27. Schliselfeld, L. and Barany, M. (1968). The Binding of ATP to Myosin. Federation Proc. 27, 519.
28. Bailin, G. and Barany, M. (1968). Active Site Studies of Myosin. Federation Proc. 27, 323.
29. Bailin, G. and Barany, M. (1968). Sensitivity of Actin-activated Myosin ATPase. Abstracts of the 24th Intern. Congr. of Physiological Sciences. Washington, D.C., 7, 24.
30. Barany, M., Barany, K. and Bailin, G. (1968). Reactivity of Myosin with 1-Fluoro-2,4-dinitrobenzene in Muscles and in Isolated Actomyosin Systems. Abstracts of the 24th Intern. Congr. of Physiological Sciences, Washington, D.C., 7, 28.
31. Barany, M., Bailin, G. and Barany, K. (1969). Reaction of Myosin with 1-Fluoro-2,4-dinitrobenzene. Abstracts of the 13th Annual Meeting of the Biophysical Society, Los Angeles, page A-11.
32. Barany, M. (1969). ATP-dependent Reaction of Myosin with 1-Fluoro-2,4-dinitrobenzene. Federation Proc. 28, 406.
33. Schliselfeld, L.H. and Barany, M. (1969). Labeling Myosin and Subfragment 1 with Adenosine Triphosphate. Federation Proc. 28, 781.
34. Barany, M. and Barany, K. (1969). ATP-dependent Reaction of 1-Fluoro-2,4-dinitrobenzene with Various Myosins. Abstracts 3rd Intern. Biophysics Congress, Cambridge, Mass., page 271.
35. Barany, M. and Barany, K. (1970). Change in the Reactivity of Myosin during Muscle Contraction. Federation Proc. 29, 857.
36. Barany, M., Barany, K. and Gaetjens, E. (1971). Change in the Reactivity of the Head Part of Myosin during Contraction of Intact Frog Muscle. Federation Proc. 30, 1147.
37. Barany, M. and Close, R. (1971). The Transformation of Myosin in Cross-innervated Rat Muscles. Abstracts of the 15th Annual Meeting of the Biophysical Society, New Orleans, LA., page 103a.
38. Barany, M., Barany, K., Gaetjens, E. and Horvath, B.Z. (1972). Resemblance of Troponin-Tropomyosin to other Protein Fractions in Frog Muscle. Abstracts of the 16th Annual Meeting of the Biophysical Society, Toronto, Canada, page 284a.

39. Barany, M. and Barany, K., Gaetjens, E. and Horvath, B.Z. (1972). Reactivity of Contractile and Regulatory Proteins during Muscle Contraction. Federation Proc. 31, 338.
40. Barany, K., Barany, M. and Merrifield, R.B. (1972). Isolation and Synthesis of an ATP-Binding Peptide. Federation Proc. 31, 431.
41. Horvath, B.Z., Gaetjens, E. and Barany, M. (1972). Immunological Properties of Light Chains of Myosin. Abstracts of the 164th National Meeting of the American Chemical Society, New York, No. 127.
42. Barany, M., Barany, K. and Gaetjens, E. (1973). Tritium-Hydrogen Exchange in Proteins of Functionally Different Semitendinosus Muscles. Abstracts of the 17th Annual Meeting of the Biophysical Society, Columbus, Ohio, p. 180a.
43. Daniel, J., Bailin, G., Hartshorne, D.J. and Barany, M. (1973). Myosin Sulfhydryl Groups and the CA Sensitivity of Actomyosin. Abstracts of the 17th Annual Meeting of the Biophysical Society, Columbus, Ohio, p. 82a.
44. Bailin, G. and Barany, M. (1973). Evidence for Regulatory Sites on Myosin and Troponin. Federation Proc. 32, 570.
45. Isaacson, A. and Barany, M. (1973). Effects of Caffeine on Water Content, Sucrose Space and 3-O-Methylglucose Uptake of Frog Semitendinosus Muscle. Federation Proc. 32, 346.
46. Barany, M., Barany, K. and Gaetjens, E. (1973). Analysis of Muscle Contraction by Labeling of Proteins. Abstracts of the 166th National Meeting of the American Chemical Society, Chicago, No. 26.
47. Isaacson, A. and Barany, M. (1974). Effects of Detubulation, Procaine, Caffeine, Quinine and Chlorpromazine on the Sucrose Space, Water Content and Contracture Development of Frog Skeletal Muscle. Federation Proc. 33, 401.
48. Barany, M., Barany, K. and Gaetjens, E. (1974). An Altered Phosphorylation Reaction in Muscles of Chickens with Hereditary Muscular Dystrophy. Federation Proc. 33, 402.
49. Glonek, T., Burt, C.T., Myers, T.C. and Barany, M. (1975). ³¹P NMR Studies of Dystrophic and Normal Muscle. Abstracts of the 170th National Meeting of the American Chemical Society, Chicago No. 166.
50. Barany, M. Gaetjens, E. and Barany, K. (1975). Studies on the Incorporation of Labeled Phosphate into Various Muscles. Federation Proc. 34, 467.

51. Barany, M., Barany, K. and Gaetjens, E. (1976). ^{32}P -Labeling of Proteolipid in Muscle. Federation Proc. **35**, 292.
52. Burt, C.T., Ketenjian, A.Y., Labotka, R.J., Glonek, T. and Barany, M. (1976). The Application of Phosphorus-31 Nuclear Magnetic Resonance to Human Muscle. Federation Proc. **35**, 1745.
53. Glonek, T., Burt, C.T., Sarmiento J.G., Barany, M. and Myers, T.C. (1976). Phosphorus-31 Nuclear Magnetic Resonance Detection of Glycerol 3-Phosphorylcholine in Muscle. Federation Proc. **35**, 1745.
54. Burt, C.T., Glonek, T. and Barany, M. (1976). Analysis of Phosphate Metabolites, the Intracellular pH, and the State of ATP in Intact Muscle by ^{31}P NMR. Abstracts of the 20th Ann. Meeting of Biophys. Soc., Seattle, Wash.
55. Burt, C.T., Glonek, T. and Barany, M. (1976). ^{31}P NMR Studies of Dystrophic and Normal Muscle. Abstracts of 10th International Congress of Biochemistry, Hamburg, Germany.
56. Burt, C.T., Glonek, T. and Barany, M. (1976). Analysis of Intact Muscle by Phosphorus Nuclear Magnetic Resonance. Abstracts, International Symposium on Contractile Systems in Non-Muscle Tissues, Bressanone, Italy.
57. Burt, C.T., Labotka, R., Flaherty, J., Danon, M., Glonek, T. and Barany, M. (1977). Determination of Phosphate Utilization in Intact Muscle by ^{31}P NMR. Abstracts of the 21st Ann. Meeting of Biophys. Soc., New Orleans, LA.
58. Barany, M., Barany, K., Gaetjens, E. and Steinschneider, A. (1977). Isolation of Phosphorylated Acid Chloroform-Methanol Soluble Proteins from Live Frog Muscle. Abstracts of the 21st Ann. Meeting of Biophys. Soc., New Orleans, LA.
59. Ribolow, H., Barany, K., Steinschneider, A. and Barany, M. (1977). Lack of Phosphate Incorporation into the Inhibitory Subunit of Troponin in Muscles of Live Frog during Rest and Activity. Abstracts of the 21st Ann. Meeting of Biophys. Soc., New Orleans, LA.
60. Ribolow, H. and Barany, M. (1977). Phosphorylation of Tropomyosin in Muscles of Live Frog. Federation Proc. **36**, 625.
61. Chalovich, J.M., Burt, C.T., Glonek, T. and Barany, M. (1977). Isolation and Characterization of an Unknown Compound from the Pectoralis Muscle of Chicken with Hereditary Dystrophy. Federation Proc. **36**, 682.
62. Steinschneider, A., Ribolow, H. and Barany, M. (1977). Glucose in Skeletal Muscle Proteins. Federation Proc. **36**, 683.

63. Barany, M. and Burt, C.T. (1977). Determination of Phosphate Utilization in Intact Muscle by Phosphorus Nuclear Magnetic Resonance. Workshop on Muscle. Alpbach, Austria.
64. Barany, M., Ribolow, H. and Barany, K. (1977). Phosphorylation of Regulatory Proteins in Muscles of Live Frogs During Rest and Activity. Workshops on Muscle, Alpbach, Austria.
65. Barany, M. and Burt, C.T. (1977). The Adenosine Triphosphatase Activity of Myosin in Intact Muscle. Workshop on Energetics of Muscular Contraction, Burlington, Vermont.
66. Glonek, T., Burt, C.T., Danon, M.J. and Barany, M. (1977). Phosphorus-31 Nuclear Magnetic Resonance Spectroscopic Analysis of Living Tissue. Abstracts of the Symposium on Engineering in the Health Sciences, University of Illinois, Medical Center, Chicago, Il.
67. Barany, M., Vuolo M., Burt, C.T., Danon, M.J., Huncke, B.H. and Glonek, T. (1977). ^{31}P NMR Analysis of the Phosphorus Components in Human Muscles with Neuromuscular Disorders Including Duchenne Dystrophy. Abstracts of the 174th National Meeting of the American Chemical Society, Chicago, Illinois.
68. Chalovich, J.M., Burt, C.T., Cohen, S.M., Glonek, T., Barany, M. and Schliselfeld, L.H. (1977). Identification of a ^{31}P NMR Resonance from Dystrophic Chicken Muscle as L-Serine Ethanolamine Phosphodiester. Abstracts of the 174th National Meeting of the American Chemical Society, Chicago, Illinois.
69. Burt, C.T., Holland, C., Barany, M., vitsky, H. and Feinberg, H. (1977). Comparison by ^{31}P NMR of the Phosphate Metabolism in Perfused Mammalian and Amphibian Hearts During Ischaemia and Perfusion. Abstracts of the 174th National Meeting of the American Chemical Society, Chicago, Illinois.
70. Glonek, T., Burt, C.T., Hawley, P.L., Barany, M. and Molnar, J. (1977). A New Acid-Labile Constituent of Mammalian Heart. Abstracts of the 174th National Meeting of the American Chemical Society, Chicago, Illinois.
71. Barany, M., Barany, K., Gillis, J.M. and Kushmerick, M.J. (1978). Phosphorylation of Myosin Light Chain During the Contraction-Relaxation Cycle of Frog Muscle. Biophys. J. 21, 44a.
72. Burt, C.T., Danon, M.J., Millar, E.A., Homa, F.L., Vuolo, M.D., Barany, M. and Glonek, T. (1978). Variation of Phosphate Metabolites in Normal and Duchenne Human Muscle. Biophys. J. 21, 184a.

73. Chalovich, J.M., Barany, M., Homa, F.L., and Burt, C.T. (1978). Serine Ethanolamine Phosphodiester Synthase and Diesterase Activities in Normal and Dystrophic Chicken Tissues. Biophys. J. 21, 184a.
74. Barany, M., Chalovich, J.M., Burt, C.T., Glonek, T. and Danon, M.J. (1978). Phosphodiesterases as Markers for Muscular Dystrophies. Abstracts of the Conference on Muscular Dystrophy and Other Inherited Diseases of Skeletal Muscle in Animals. The New York Academy of Sciences, New York.
75. Mak, A.S., Smillie, L.B. and Barany, M. (1978). Phosphorylation Site of α -Tropomyosin from Frog Skeletal and Rabbit Skeletal and Cardiac Muscle. Abstracts of the Meeting of the Canadian Biochemical Societies, Abstract No. 691, p. 173.
76. Burt, C.T., Chalovich, J.M., Danon, M.J., Glonek, T. and Barany M. (1978). Phosphorus Nuclear Magnetic Resonance of Diseased Muscle. Abstracts of the Conference "Frontiers of Biological Energetics: Electrons to Tissues," Univ. of Pennsylvania, Philadelphia.
77. Burt, C.T., Danon, M.J., Vuolo, M. and Barany, M. (1978). Variation of Glycerol Phosphorylcholine in Duchenne Muscular Dystrophy. Abstracts, 4th International Congress on Neuromuscular Diseases, Montreal, Canada.
78. Barany, M. and Barany, K. (1979). Effects of Phosphorylation of Myosin Light Chain in Intact Frog Muscle on the Bound Calcium of Actin. Biophys. J. 25, 74a.
79. Kopp, S.J., and Barany, M. (1979). Influence of Positive and Negative Inotropic Agents on Incorporation of [32 P]Orthophosphate into Myofibrillar Proteins of Perfused Rat Heart. Biophys. J. 25, 121a.
80. Sarmiento, J.G., and Barany, M. (1979). Removal of the 18,000-Dalton Light Chain of Myosin from Frog Myofibrils. Biophys. J. 25, 246a.
81. Barany, M. and Burt, C.T. (1979). The Adenosine Triphosphatase Activity of Myosin in Intact Muscle. Federation Proc. 38, 338.
82. Barron, J.T., and Barany, M. (1979). Protein Phosphorylation in Arterial Smooth Muscle. Federation Proc. 38, 1196.
83. Kopp, S.J., Glone, T., Erlanger, M., Perry, E.F., Barany, M., and Perry, M.H. Jr. (1979). Hypertension and Cardiac Changes in Rats Fed Cadmium and/or Lead. Clin. Res. 27, 468a.
84. Burt, C.T., Danon, M.J., and Barany, M. (1979). Function and Dysfunction in Muscle Investigated by Phosphorus NMR. Abstracts Am. Chem. Soc. Great Lakes Regional Meeting, Rockford, IL.

85. Nwoga, J., Bittar, E.E., Chambers, G. and Barany, M. (1980). Is Barnacle Muscle Fiber a Useful Preparation for Studying the Action of Aldosterone Federation Proc. 39, 492.
86. Barron, J.T., Barany, M., and Barany, K. (1980). Reversible Phosphorylation of the Myosin Light Chain in the Contraction-Relaxation-Contraction Cycle of Intact Arterial Smooth Muscle. Federation Proc. 39, 711.
87. Janis, R.A., Barany, K., and Barany, M. (1980). Reversible Myosin Light Chain Phosphorylation in Rat Uterine Smooth Muscle. Federation Proc. 39, 711.
88. Barany, M., Chalovich, J.M., Burt, C.T., Valentine, B., and Fiat, D. (1980). ^{13}C NMR Spectra of Intact Muscle. Federation Proc. 39, 1806.
89. Bittar, E.E., Nwoga, J., Chambers, G., and Barany, M. (1980). Mode of Stimulation Injecting GTP of the Oubain-Insensitive Na Efflux in Aldosterone Pre-exposed Barnacle Muscle Fibers. Abstracts of 28th Internat. Congr. of Physiol. Sciences, Budapest, Hungary.
90. Kopp, S.J., Glonek, T., and Barany, M. (1980). Myocardial K, Mg, and Ca Overload: Functional and Metabolic Correlates. J. Am. Osteopath. Association 80, 230/140.
91. Barany, M., Hager, S.R., Bittar, E.E., and Nwoga, J. (1981). Protein Phosphorylation Barnacle Muscle Fibres. Biophys. J. 33, 276a.
92. Barany, M., Barany, K., Baron, J.T., Kopp, S.J., Janis, R.A., Doyle, D.D., Hager, S.R., Homa, F., and Sayers, S.T. (1980). Protein Phosphorylation in Live Muscle. Abstracts of the 8th Cold Spring Harbor Conference on Cell Proliferation-"Protein Phosphorylation" page 62.
93. Glonek, T., Barany, M., and Doyle, D.D. (1981). High Resolution ^{31}P Nuclear Magnetic Resonance Spectroscopy of Diseased Muscle. Biophys. J. 33, 202a.
94. Schliselfeld, L.H., Barany, M., Danon, M.J., Abraham, E., and Kleps, R.A. (1981). Lysolecithin Phospholipase Activities of Muscles from Control and Duchenne Muscular Dystrophy Subjects. Biophys. J. 33, 234a.
95. Homa, F.L., Barany, M., and Hager, S.R. (1981). Protein Phosphorylation in Slow and Fast Chicken Muscle. Biophys. J. 33, 277a.
96. Barany, K., Janis, R.A., Barron, J.T., Barany, M., Doyle, D.D., and Sarmiento, J.G. (1981). Comparative Studies on Protein Phosphorylation in Arterial and Uterine Smooth Muscles. Biophys. J. 33, 278a.
97. Hager, S.R., Barany, M., and Barany, K. (1981). Protein Phosphorylation in Hereditary Dystrophic Chicken Muscle. Federation. Prod. 40, 1623.

98. Barany, M., Hager, S.R., Barany, K., and Homa, F.L. (1982). Protein Phosphorylation during Contraction of Chicken Slow and Fast Skeletal Muscles. Biophys. J. 37, 262a.
99. Doyle, D.D. and Barany, M. (1982). High Resolution Natural Abundance ^{13}C NMR Spectra of Intact Muscle. Biophys. J. 37, 81a.
100. VanderMeulen, D., Barany, M., and Abraham, E. (1982). Incorporation of $[^{32}\text{P}]$ Phosphate into the Phospholipids of Diseased Human Muscles. Biophys. J. 37, 135a.
101. Barany, M., Doyle, D.D., Westler, W.M., and Markley, J.L. (1982). ^{13}C NMR of Intact Human Muscle. Quantitation of Lactic Acid; T_1 -relaxation and NOE Measurements of Phospholipid Components in Normal and Diseased Tissues. Abstracts of First Annual Meeting of Society of Magnetic Resonance in Medicine, Boston, 1982.
102. Glonek, T., Kopp, S.J., Greiner, J.V., Prentice, R.C., Feliksik, J.M., and Barany, M. (1982). In Vitro Phosphorus Nuclear Magnetic Resonance Analysis of Control and Diseased Human Tissue Samples, Including Noninvasive In Vivo Chemical Analysis at the Level of the Human Subject. J. Am. Osteop. Assoc. 82, 145/119.
103. Abraham, E., Barany, M., and Glonek, T. (1983). Phosphorus Nuclear Magnetic Resonance of Human Muscle Extracts. Abstracts of the 29th Meeting of the Orthopaedic Research Society, page 277, Anaheim, CA.
104. Barany, M., Doyle, D.D., Wyrwicz, A.M., Westler, W.M., and Markley, J.L. (1983). Natural Abundance ^{13}C NMR of Intact Tissue. Abstracts of 17th Great Lakes Regional Meeting of the American Chemical Society. St. Paul, MN.
105. Barany, M. and Barany, K. (1983). Myosin Light Chain Phosphorylation in Skeletal, Cardiac, and Smooth Muscle. Abstracts of the 29th Congress of International Union of Physiological Sciences. Sidney, Australia.
106. Schliselfeld, L.H., Barany, M., and Hager, S.R. (1983). Endogenous Protein Kinase Substrates in Chicken Skeletal Muscle, Heart, and Gizzard. Biophys. J. 41, 102a.
107. Barany, K., VanderMeulen, D.L., Ledvora, R.F., and Barany, M. (1983). Myosin Light Chain Phosphorylation During Contraction of Chicken Fast and Slow Skeletal Muscles. Biophys. J. 41, 149a.
108. Barany, M., Doyle, D.D., Graff, G., Mougios, V., Spencer, D.L., Abraham, E., Westler, W.M., and Markely, J.L. (1983). Natural Abundance ^{13}C NMR Spectra of Diseased Human Muscle. Biophys. J. 41, 303a.
109. Ledvora, R.F., Barany, K., VanderMeulen, D.L., Barron, J.T., and Barany, M. (1983). Two Dimensional Gel Electrophoretic Analysis of Myosin Light Chain

Phosphorylation in Contracting and Resting Vascular Smooth Muscle. Federation Proc. 42, 736.

110. Schliselfeld, L.H., Graff, G., Abraham, E., Spencer, D.L., Kester, M., and Barany, M. (1983). Phospholipid Content of Diseased Human Skeletal Muscles. Federation Proc. 42, 790.
111. Kester, M., and Barany, M. (1983). Plasmalogens in Diseased Human Muscles. Federation Proc. 42, 790.
112. Barany, M., Doyle, D.D., Mougios, V.C., Westler, W.M., and Markley, J.L. (1983). Analysis of Normal and Diseased Human Muscles by Natural Abundance ^{13}C NMR. Abstracts of the Second Annual Meeting of Society of Magnetic Resonance in Medicine, San Francisco.
113. Arus, C., Barany, M., Westler, W.M., and Markley, J.L. (1983). ^1H NMR of Intact Tissue. Abstracts of the 8th Meeting of International Society of Magnetic Resonance, Chicago, IL.
114. Abraham, E., Barany, M., and Kornblatt, M. (1984). Clinical Use of Nuclear Magnetic Resonance of Human Muscle. Abstracts of the 51st Annual Meeting of the American Academy of Orthopaedic Surgeons, Atlanta, Georgia.
115. Arus, C., Barany, M., Westler, W.M., and Markley, J.L. (1984). ^1H NMR of Intact Tissue at 11 Tesla. Biophys. J. 45, 32a.
116. Barany, M., Arus, C., Wyrwicz, A.M., Westler, W.M., and Markley, J.L. (1984). ^{13}C NMR of Intact Tissue at 11 Tesla. Biophys. J. 45, 33a.
117. Barany, K., Ledvora, R.F., Vander Meulen, D.L., Barron, J., and Barany, M. (1984). Stretch-Induced Phosphorylation of the 20,000-Dalton Light Chain of Myosin in Arterial Smooth Muscle. Biophys. J. 45, 44a.
118. Ledvora, R.F., Barany, K., VanderMeulen, D.L., Mougios, V., and Barany, M. (1984). Myosin Light Chain Phosphorylation during Activation of Arterial Smooth Muscle. Federation Proc. 43, 426.
119. Kester, M., Ledvora, R.F., and Barany, M. (1984). Platelet Activating Factor Potentiates Arterial Contraction. Federation Proc. 43, 429.
120. Ledvora, R.F., Barany, K., and Barany, M. (1984). Myosin Light Chain Phosphorylation in Stretch-Activated Arterial Smooth Muscle. Abstracts of the Third International Symposium on Two-Dimensional Protein Mapping, Argonne, IL.
121. Barany, M. and Arus, C. (1984). Lactate Metabolism in Muscle. Abstracts of the 3rd Annual Meeting of Society of Magnetic Resonance in Medicine, New York.

122. Arus, C., and Barany, M. (1984). Measurement of Phosphocreatine to Creatine Ratio and the Intracellular pH in Superfused Frog Muscle by ^1H NMR. News of Metabolic Research 1, 4-5.
123. Barany, M., Chang, J.C., Arus, C., and Wyrwicz, A.M. (1985). Natural Abundance ^{13}C NMR of Brain, Mobilization of Phospholipids by Halothane. Biophys. J. 47, 368a.
124. Arus, C., Chang, Y.C., and Barany, M. (1985). N-acetylaspartate as an Intrinsic Thermometer for ^1H NMR of Brain. Biophys. J. 47, 368a.
125. Barany, K., Ledvora, R.F., Csabina, S., and Barany, M. (1985). Stretch-Induced Myosin Light Chain Phosphorylation and Stretch-Release-Induced Tension Development in Arterial Smooth Muscle. Biophys. J. 47, 186a.
126. Schliselfeld, L., and Barany, M. (1985). Hydrolysis in Muscle of Phosphatidylcholine, Phosphatidylethanolamine, and Glycerophosphorylcholine, Federation Proc. 44, 1607.
127. Arus, C., Chang, Y.-C. and Barany, M. (1985). Assignment of Resonances in the ^1H NMR Spectra of Excised Rat Brain. Abstract of the Fourth Annual Meeting of the Society of Magnetic Resonance in Medicine, London, pages 747-748.
128. Barany, M., Chang, Y.C. and Arus, C. (1985). Role of Phospholipids in the Mechanism of Anesthesia in Rat Brain. Abstract of the 13th International Congress of Biochemistry, Amsterdam, The Netherlands, page 137.
129. Barany, K., Csabina, S. and Barany, M. (1985). Phosphorylation-Dephosphorylation of Myosin Light Chain in Arterial Smooth Muscle. Abstracts of the 13th International Congress of Biochemistry, Amsterdam, The Netherlands, page 689.
130. Barany, K., Csabina, S. and Barany, M. (1985). The Phosphorylation of the 20,000-Dalton Myosin Light Chain in Rat Uterus. Abstract of the Symposium on "Protein Phosphatases", Brussels, Belgium.
131. Barany, M., Arus, C., Barmada, R., Abraham, E., Anderson, J.A. and Marotta, S.F. (1986). A Simple Procedure for NMR Measurements of Intra- and Extracellular Sodium in Intact Tissues. Biophys. J. 49, 472a.
132. Barany, K., Csabina, S. and Barany, M. (1986). Comparative Studies of Myosin Light Chain Phosphorylation in Skeletal and Smooth Muscles. Biophys. J. 49, 71a.
133. Barany, M., Arus, C., Anderson, J.A. and Marotta, S.F. (1986). Alterations in the Natural Abundance ^{13}C NMR Spectra of Skeletal Muscle Membranes Depending on the Extraction Medium of Muscle. Federation Proc. 45, 310.
134. Venkatasubramanian, P.N., Barany, M. and Arus, C. (1986). Analysis of Human Muscle Extracts by Proton NMR. Federation Proc. 45, 470.

135. Barany, K., Csabina, S., Mougios, V. and Barany, M. (1986). Analysis of the Multiple Forms of the 20,000-Dalton Myosin Light Chain from Uterine and Arterial Smooth Muscles. Federation Proc. **45**, 762.
136. Mougios, V. and Barany, M. (1986). Identification of Multiple Forms of the 20,000-Dalton Myosin Light Chain of Arterial Smooth Muscle. Federation Proc. **45**, 762.
137. Barany, M. and Venkatasubramanian, P.N. (1986). Quantification of Phospholipids in Excised Tissues by NMR. Federation Proc. **45**, 1669.
138. Barany, K., Csabina, S., Mougios, V. and Barany, M. (1986). Structure and Function of the 20,000-Dalton Myosin Light Chain in Smooth Muscle. Abstracts of EMBO Workshop, Maria Alm, Austria.
139. Barany, M., and Arus, C. (1986). ^1H NMR Spectroscopy of Excised Tissues. Abstracts of the Society of Magnetic Resonance in Medicine Fifth Annual Meeting, Montreal, Canada.
140. Barany, M. and Mougios, V. (1986). The Multiple Forms of the Phosphorylatable Myosin Light Chain in Arterial Smooth Muscle are not Artifacts. The Physiologist **29**, 154.
141. Mougios, V. and Barany, M. (1986). Differences in Myosin Light Chain Phosphorylation between Arterial Smooth Muscle and its Actomyosin. The Physiologist **29**, 154.
142. Gate, E., Venkatasubramanian, P.N. and Barany, M. (1987). Natural Abundance ^{13}C NMR of Frog Skin. Biophys. J. **51**, 71a.
143. Venkatasubramanian, P.N. and Barany, M. (1987). ^1H NMR Spectra of Leg Muscle in Rat and Frog. Federation Proc. **46**, 675.
144. Barany, M., Gate, E.N. and Venkatasubramanian, P.N. (1987). The Interaction of Nicotine with Rat Tissue Membranes. Federation Proc. **46**, 689.
145. Barany, K., Csabina, S., Erdodi, F., and Barany, M. (1987). Existence of Isoforms of the Phosphorylatable Myosin Light Chain in Rat Uterus. Federation Proc. **46**, 1098.
146. Venkatasubramanian, P.N., Tadewaldt, G., Barany, M. and Grist, T.M. (1987). ^1H and ^{31}P NMR Spectra of Rat Sarcoma. Federation Proc. **46**, 2276.
147. Barany, M., Spigos, D.G., Grist, T.M., Mok, E. and Venkatasubramanian, P.N. (1987). Multinuclear Human MR Spectroscopy. Magn. Reson. Imaging **5**, Suppl. 1, p. 128.

148. Barany, M., Spigos, D.G., Mok, E., Venkatasubramanian, P.N., Wilbur, A.C., and Langer, B.G. (1987). High Resolution ^1H MR Spectroscopy of Live Human Tissues. Abstracts 5th Ann. Meeting, Soc. Magn. Reson. Imaging, San Antonio, TX.
149. Barany, M., Spigos, D.G., Mok, E., Venkatasubramanian, P.N., Wilbur, A.C., Langer, B.G., and Gyi, B. (1987). Magnetic Resonance Spectroscopy of Live Human Subjects. Abstracts No. 48 of the Am. Chem. Soc., 21st Great Lakes Regional Meeting, Chicago, IL.
150. Barany, M., Flamig, D., Venkatasubramanian, P.N., and Charles, H.C. (1987). Fat and Water Suppressed Proton Spectroscopy. Abstracts of the 6th Ann. Meeting of Soc. Magn. Reson. Med., p. 384, New York.
151. Barany, M., Langer, B.G., Venkatasubramanian, P.N., Mok, E., and Spigos, D.G. (1987). Proton Magnetic Resonance Spectroscopy of Live Human Tissues. Abstracts of the 6th Ann. Meeting of Soc. Magn. Reson. Med., pp. 1049, New York.
152. Venkatasubramanian, P.N. and Barany, M. (1987). ^1H NMR Spectra of Live Frog. The Physiologist 30, 124.
153. Blondet, P., Venkatasubramanian, P.N., and Barany, M. (1987). ^1H NMR Spectra of Live Rat. The Physiologist 30, 124.
154. Erdodi, F., Barany, M., and Barany, K. (1987). Myosin Light Chain Phosphorylation Induced by ATP or ATP- γ -S in Homogenate and in Actomyosin from Aortic Smooth Muscle. The Physiologist 30, 128.
155. Barany, M., Langer, B.G., Glick, R.P., Venkatasubramanian, P.N., Wilbur, A., and Spigos, D.G. (1987). In Vivo H-1 Spectroscopy in Humans at 1.5 T. Radiology 165(P), 66.
156. Mafee, M.F., Goldberg, M.F., Fishman, G., and Barany, M. (1987). MR Imaging in the Evaluation of Leukokoric Eyes. Radiology 165(P), 159.
157. Venkatasubramanian, P.N. and Barany, M. (1988) Quantitation of Phosphate Metabolites in Human Leg In Vivo. Abstracts of the 6th Ann. Meeting of Society of Magnetic Resonance Imaging, Boston.
158. Barany, M., Abraham, E., Venkatasubramanian, P.N., Mok, E., and Spigos, D.G. (1988) Analysis of Human Fat by H-1 MR Spectroscopy In Vivo. Magn. Reson. Imaging 6, Suppl. 1, 126.
159. Barany, M., Mok, E., Venkatasubramanian, P.N., and Langer, B.G. (1988). H-1 MR Spectroscopy of Human Heart In Vivo. Magn. Reson. Imaging 6, Suppl. 1, 127.

160. Blondet, P., Venkatasubramanian, P.N., and Barany, M. (1988). NMR Investigation of Nicotine-treated Live Rats. Biophys. J. 53, 81a.
161. Erdodi, F., Barany, M., and Barany, K. (1988). Phosphopeptide Maps of the 20,000 DA Myosin Light Chain Isoforms Phosphorylated In Vivo and In Vitro. Biophys. J. 53, 464a.
162. Barron, J.T., Barany, K., Barany, M., and Kopp, S.J. (1988). Myosin Light Chain Phosphorylation, Tension Development and ATP Concentration in Intact Arterial Smooth Muscle. The FASEB Journal 2, A332.
163. Barany, M. and Venkatasubramanian, P.N. (1988). Estimation of Sodium Concentration in Human Legs In Vivo. The FASEB Journal 2, A758.
164. Venkatasubramanian, P.N., Mafee, M.F., and Barany, M. (1988). Estimation of Phosphate Metabolite Concentrations in Human Legs In Vivo. The FASEB Journal 2, A758.
165. Barany, M., Knop, R.H., Victor, T.A., Venkatasubramanian, P.N., Mok, E., Wilbur, A.C., and Mafee, M.F. (1988). Proton Magnetic Resonance Spectroscopy of Human Tumors In Vivo. Abstracts of the Symposium on Position Emission Tomography and Magnetic Resonance Spectroscopy in Oncology. Heidelberg, W. Germany.
166. Lopata, M., Barany, M., Onal, E., Aronson, R., and Venkatasubramanian, P.N. (1988). Effects of Inspiratory Loading on ³¹ Phosphorus Magnetic Resonance Spectroscopy of the Inspiratory Intercostal Muscles in Normal Humans. Clinical Research 36, 625A.
167. Mafee, M.F., Jafar, J., Wycliffe, N., and Barany, M. (1988). MRI in the Evaluation of Epidermoid Cysts of the Posterior Fossa. Abstracts of the Second European Congress of NMR in Medicine and Biology, Berlin.
168. Mafee, M.F., Peyman, G.A., Cohen, S.B., and Barany, M. (1988) MR Imaging and In-Vivo Proton Spectroscopy of Intraocular Tumors. Abstracts of the Second European Congress of NMR in Medicine and Biology, Berlin.
169. Victor, T., Knop, R., Barany, M., and Mok, E. (1988) Studies on Biology of Breast Cancer (BC) by Nuclear Magnetic Resonance (NMR). Proceedings of the American Association of Clinical Research, 29, 172.
170. Knop, R., Victor, T., Barany, M., and Mok, E. (1988). Mapping of Human Brain Tumors by Combined Magnetic Resonance Imaging (MRI) and in vivo Nuclear Magnetic Resonance (NMR) Spectroscopy. Proceedings of the American Association of Clinical Research, 29, 178.

171. Barany, M., Knop, R.H., Victor, T., Venkatasubramanian, P.N., Wycliffe, N.D., Mok, E., Wilbur, A.C., and Mafee, M.F. (1988). Differentiation of Human Tumors by H-1 MR Spectroscopy In Vivo. Abstracts of 13th International Conference on Magnetic Resonance in Biological Systems. Madison, WI.
172. Mafee, M.F., Barany, M., Wycliffe, N., and Cohen, S.B. (1988) MRI and Potential Use of In Vivo H-1 Spectroscopy of Uveal Melanomas. Abstracts of The Meeting of The Society of Magnetic Resonance in Medicine. p. 328, San Francisco, CA.
173. Venkatasubramanian, P.N., Barany, M., Siegel, I.M., Wilbur, A.C., Zwicky, G.S., and Heydemann, P.T. (1988) Quantitation of Phosphate Metabolites in Human Leg of Neuromuscular Diseases In Vivo. Abstracts of the Society of Magnetic Resonance in Medicine. p. 823, San Francisco, CA.
174. Barany, M., Knop, R.H., Victor, T.A., Venkatasubramanian, P.N., Capek, J.L., Wycliffe, N.D., Greenberg, M., Wilbur, A.C., Mafee, M.F., and Greenberg, B.M. (1988). H-1 MR Spectroscopy of Human Tumors in Vivo. Radiology 169(P), 83.
175. Mafee, M.F., Wycliffe, N.D., Barany, M., Cohen, S.B., and Puklin, J. (1988). MR Imaging and In Vivo H-1 Spectroscopy of Intraocular Lesions. Radiology 169(P), 104.
176. Mafee, M.F., Wycliffe, N.D., Jafar, J., Kumar, A., and Barany, M. (1988). MR Imaging in the Evaluation of Epidermoid Cysts and Cholesterol Granulomas of the Posterior Fossa. Radiology 169(P), 312.
177. Barany, M., Siegel, I.M., Mok, E., Wilbur, A.C., Mafee, M.F., Wycliffe, N.D. (1988). In Vivo H-1 and P-31 Spectroscopy of Human Leg Diseases. Radiology 169(P), 237.
178. Barany, M., and Venkatasubramanian, P.N. (1988). Volume-selective, Water-suppressed Proton Spectra of Human Brain and Muscle In Vivo. Radiology 169(P), 389.
179. Glick, R.P., Barany, M., and Wycliffe, N. (1988). ¹H Proton MRI Spectroscopy of Human CNS Tumors: In Vivo. Abstracts of the Congress of Neurological Surgeons, Seattle, WA.
180. Barany, M., Venkatasubramanian, P.N., Mok, E., Abraham, E., Siegel, I.M., Wilbur, A.C., and Zwicky, G.S. (1989). Quantitative and Qualitative Fat Analysis in Human Spectroscopy in Vivo. The Journal of Cell Biology, 107, No. 6, Part 3, p. 647A.
181. Barany, M., and Venkatasubramanian, P.N. (1989). Volume-Selective Water-Suppressed Proton Spectra of Human Brain Tumors In Vivo. The FASEB Journal 3, A993.

182. Barany, M., Venkatasubramanian, P.N., Capek, J., Regan, E.Q., Motkur, S., Greenberg, M., Greenberg, B.M., and Barmada, R. (1989). Volume-Selective Water-Suppressed Proton Spectra of Human Tissues In Vivo. Biophys. J. 55, 452a.
183. Barany, K., Erdodi, F., Rokolya, A., and Barany, M. (1989). Phosphorylation and Dephosphorylation of Distinct Sites of the 20,000-Dalton Myosin Light Chain in Arterial Smooth Muscle. Biophys. J. 55, 233a.
184. Barany, M. and Venkatasubramanian, P.N. (1989). Localized Water-Suppressed Proton MR Spectroscopy of Human Brain and Muscle In Vivo. Magn. Reson. Imag. 7, 79.
185. Rokolya, A., Pato, M.D., Barany, M., and Barany, K. (1989). Comparative Studies on the Dephosphorylation of Distinct Phosphopeptides of Myosin light Chain by Smooth Muscle Phosphatases. Abstracts of Second International Phosphatase Conference Cincinnati, OH.
186. Barany, M., Venkatasubramanian, P.N., Dew, L.L., Glick, R.P., and Greenberg, I.M. (1989). Analysis of Human Brain Tumors by Proton Magnetic Resonance Spectroscopy In Vivo. Abstracts of the 8th Meeting of the Society of Magnetic Resonance in Medicine, p. 429, Amsterdam, The Netherlands.
187. Barany, M., Venkatasubramanian, P.N., Glick, R.P., Dew, L.L., Nolan, J.P., Wilbur, A.C., Sharma, R., Arnold, P.M., and Greenberg, I.M. (1989). Localized Spectroscopy of Human Brain Tumors In Vivo. Radiology, 173(P), page 234.
188. Abraham, E., Venkatasubramanian, P.N., Barany, M., Gruszka, P.J., Larson, J. Tack, S.R., Kohlmann, J.M., Feldman, A., Hampton, S., and Wilbur, A.C. (1990). Magnetic Resonance Spectroscopy of Human Neuromuscular Diseases. Abstracts of 36th Ann. Meeting of Orthopedic Research Society, p. 544, New Orleans, Louisiana.
189. Barany, K., Rokolya, A., and Barany, M. (1990). Two-Dimensional Phosphopeptide Mapping of the 20,000-Dalton Myosin Light Chain in Phorbol Dibutyrate-Contracted Artery. Biophys. J. 57, 158a.
190. Barany, M. (1990). Proton Magnetic Resonance Spectroscopy of Normal and Cancerous Human Brain In Vivo. Abstracts of the 15th International Cancer Congress, page 807 Hamburg, West Germany.
191. Sharma, R., Venkatasubramanian, P.N., Barany, M., and Davis, J.M. (1990). Proton Magnetic Resonance Spectroscopy of Brain. Abstracts of the 143rd Ann. Meeting of American Psychiatric Association, New York.
192. Barany, M., Rokolya, A., Koncz, C., and Barany, K. (1991). Absence of Calponin Phosphorylation in Resting or Contracting Arterial Smooth Muscle. Biophys. J. 59, 219a.

193. Barany, K., Rokolya, A., Guzman, T.S., and Barany, M. (1991). Modification of Myosin Light Chain Phosphorylation in K^+ -Induced Sustained Arterial Muscle Contraction by Phorbol Dibutyrate. Biophys. J. 59, 9a.
194. Rokolya, A., Barany, K., and Barany, M. (1991). The Exchange of the 20-kDa Myosin Light Chain-Bound Phosphate During Sustained Contraction of Arterial Muscle. Biophys. J. 59, 9a.
195. Barany, K., Rokolya, A., and Barany, M. (1991). Quantitation of the 20-kDa Myosin Light Chain-Bound Phosphate During Sustained Contraction of Arterial Muscle. The FASEB Journal. 5, A1738.
196. Barany, M., Rokolya, A., and Barany, K. (1991). Lack of Exchange of the 20-kDa Myosin Light Chain-Bound Phosphate During the MgATPase Activity of Arterial Smooth Muscle Actomyosin. The FASEB Journal. 5, A1738.
197. Barany, M., and Barany, K. (1991). Protein Phosphorylation in Regulation of Smooth Muscle Contraction. Abstracts of First U.S.-Canadian Symposium of WHMA. Sarasota, FL.
198. Barany, M., Polyak, E., Vignali, C.R., Guzman, T.S., and Barany, K. (1992). Protein Phosphorylation During the Contraction-Relaxation-Contraction Cycle of Arterial Smooth Muscle. The FASEB Journal. 6, A6.
199. Barany, K., Polyak, E., Koncz, C., Vignali, C.R., and Barany, M. (1992). Protein Phosphorylation in Arterial Muscle Contracted By High Concentration of Phorbol Dibutyrate in the Presence and Absence of Ca^{2+} . The FASEB Journal. 6, A6.
200. Barany, M., and Barany, K. (1993). Involvement of Calponin and Caldesmon in Sustained Contraction of Arterial Smooth Muscle and Myofibrils. Biophys. J. 64, A122.
201. Barany, K. and Barany, M. (1993). Amino Acid Sequence of Myosin Light Chain Phosphopeptides Isolated from Arterial Muscle. The FASEB Journal. 7, 1078.
202. Barany, K. and Barany, M. (1994). Calponin Phosphorylation Does not Accompany Contraction of Various Smooth Muscles. Biophys. J. 66, A139.
203. Barany, M., Hegedus, L., and Barany, K. (1994). Dissociation of Relaxation and Myosin Light Chain Dephosphorylation in Smooth Muscle. Biophys. J. 66, A139.
204. Barany, M., and Barany, K. (1995). Smooth Muscle Relaxation without Myosin Light Chain Dephosphorylation. J. Musc. Res. Cell Motil. 16, 159-160.
205. Barany, K., Pravdik, A.M., and Barany, M. (1995). Two-Dimensional Gel Electrophoretic Studies of the 20-kDa Myosin Light Chain Isoforms. Faseb J., 9, A59.

206. Barany, K. and Barany, M. (1996). Inhibition of Smooth Muscle Contraction b Low Concentration of Urea. FASEB J., 10, A660.
207. Barany, M. and Barron, J.T. (1997). Pattern of Fatty Acid and Glucose Metabolism in Contracting Vascular Smooth Muscle. FASEB J., 11, A259.
208. Barron, J.T., Barany, M., and Gu, L. (1999). Metabolic Effects of Adenosine on Vascular Smooth Muscle. FASEB J., 13, A92.
209. Barany, M., Barron, J.T. and Barany, K. (2002) Exchange of the Actin-bound Nucleotide.in Intact Arterial Smooth Muscle. Biophys J. 82, 356a.
210. Barany, M., and de Tombe, P.P. (2003) Rapid Exchange of Actin-bound Nucleotide in Perfused Rat Heart. Biophys. J. 84, 19a.
211. Barany, M., Lee, B-S. and de Tombe, P.P. (2004). Existence of Actin Monomer in the Cytoplasm of Rat Heart. Biophys. J. 86, 211a. .

REVIEWS AND BOOK CHAPTERS:

1. Barany, M. (1959). Studies on the Functional Sulfhydryl Groups of Myosin and Actin. In Symposium on Sulfur in Proteins, Falmouth, Mass., U.S.A. Academic Press, New York, pp. 317-335.
2. Barany, M. and Finkelman, F. (1964). The Lability of the Bound Calcium of F-Actin under Ultrasonic Vibration. In Biochemistry of Muscle Contraction, (Gergely, J., ed.) Little, Brown and Co., Inc., pp. 173-177.
3. Barany, M. and Barany, K. (1972). A Proposal for the Mechanism of Contraction in Intact Frog Muscle. In Cold Spring Harbor Symposia on Quantitative Biology 37, pp. 157-167.
4. Barany, M., Barany, K., Gaetjens, E., and Horvath, B.Z. (1974). Studies on the Phosphorylation-Dephosphorylation of Troponin-Tropomyosin During Muscle Contraction and Applications as a Probe of Dystrophic Chicken Muscle. In Exploratory Concepts in Muscular Dystrophy II., Excerpta Medica, Amsterdam, pp. 451-462.
5. Barany, M., Burt, C.T., Labotka, R.J., Danon, M.J., Glonek, T., Huncke, B.H. (1977). Application of ³¹P NMR for the Study of Diseased Muscle. In Fifth International Scientific Conference of the Muscular Dystrophy Association, Excerpta Medica, Amsterdam, pp. 337-340.
6. Glonek, T., Burt, C.T., Labotka, R.J., Danon, M.J., Vuolo, M.D., and Barany, M. (1977). Phosphorus-31 Nuclear Magnetic Resonance Spectroscopic Analysis of Intact

- Tissue. In Benjamin Goldberg Symposium on Engineering in Health Sciences, Univ. Illinois Medical Center, Chicago, pp. 214-235.
7. Burt, C.T., Chalovich, J.M., Danon, M.J., Glonek, T., and Barany, M. (1978). Phosphorus Nuclear Magnetic Resonance of Diseased Muscle. In Frontiers of Biological Energetics Vol. 2. (P.L. Dutton, J.S. Leigh, A. Scarpa, eds.), Academic Press, pp. 1371-1378.
 8. Burt, C.T., Cohen, S.M., and Barany, M. (1979). Analysis of Intact Tissue with ^{31}P NMR. Ann. Rev. Biophys. Bioeng. 8, pp. 1-25.
 9. Barany, M. and Barany, K. (1980). Phosphorylation of Myofibrillar Proteins. Ann. Rev. Physiol. 42, pp. 275-292.
 10. Kopp, S.J., Glonek, T., Erlanger, M., Perry, E.F., Barany, M., and Perry, H.M. Jr. (1980). Altered Myocardial Function and Metabolism Induced by Chronic, Low Level Cadmium Feeding in the Rat. In Trace Substances in Environmental Health. (D.D. Hempill, ed.), University of Missouri Press, Columbia, Mo., Vol. 13, pp. 446-452.
 11. Glonek, T., Burt, C.T., and Barany, M. (1981). ^{31}P NMR Analysis of Intact Tissue Including Several Examples of Normal and Diseased Human Muscle Determinations. In NMR-Basic Principles and Progress, vol. 19: NMR in Medicine (R. Damadian, ed.) Springer-Verlag, Heidelberg, pp. 121-159.
 12. Barany, M., Chalovich, J.M., Burt, C.T., and Glonek, T. (1981). Nuclear Magnetic Resonance Studies of Muscle. In Disorders of the Motor Unit. (D.L. Schotland, ed.). Houghton Mifflin Professional Publishers, Pacific Palisades, California, pp. 697-714.
 13. Barany, M., Barany, K., Barron, J.T., Kopp, S.J., Janis, R.A., Doyle, D.D., Hager, S.R., Schlesinger, D.H., Homa, F., and Sayers, S.T. (1981). Protein Phosphorylation in Live Muscle. In "Protein Phosphorylation" 8th Cold Spring Harbor Conference on Cell Proliferation. (O.M. Rosen and E.G. Krebs, eds.), pp. 869-886.
 14. Barany, M. and Glonek, T. (1982). Phosphorus-31 Nuclear Magnetic Resonance. In Methods in Enzymol. (L.W. Cunningham and D.F. Frederiksen, eds.), vol. 85, pp. 624-676.
 15. Barany, M. and Glonek, T. (1984). Identification of Diseased States by ^{31}P NMR. In Phosphorus-31 NMR (D. Gorenstein, ed.) Academic Press, New York, N.Y. pp. 512-545.
 16. Barany, K., Ledvora, R.F., and Barany, M. (1985). The Phosphorylation of the 20,000-Dalton Myosin Light Chain in Intact Arterial Muscle. In Calmodulin Antagonists and Cellular Physiology, (H. Hidaka and D.J. Hartshorne, eds.), Academic Press, N.Y., pp. 199-223.

17. Barany, M. and Arus, C. (1986). Lactic Acid Production in Intact Muscle, as Followed by ^{13}C and ^1H Nuclear Magnetic Resonance. In Proceedings of McMaster International Symposium on Human Muscle Power. Human Kinetics Publishers, Inc., Champaign, IL., pp. 153-167.
18. Barany, M. (1986). ATPase Activity of Myosin Correlated with Speed of Muscle Shortening. In Contemporary Classics in the Life Sciences, vol. 2. The Molecules of Life, (J.T. Barrett, ed.) p. 152, ISI Press, Philadelphia.,.
19. Barany, K., and Barany, M. (1990). Myosin Light Chain Phosphorylation in Uterine Smooth Muscle. In Uterine Function: Molecular and Cellular Aspects (M.E. Carsten, and J.D. Miller, eds.) Plenum Press Publishing Corp., New York, pp. 71-98.
20. Barany, K. Barany, M. and Giometti, C.S. (1995). Polyacrylamide Gel Electrophoresis of Structure Muscle Proteins. J. Chromatography A, 698, 302-332.
21. Barany, K. and Barany, M. (1996). Myosin Light Chains. In Biochemistry of Smooth Muscle Contraction (M. Barany, ed.) Academic Press, San Diego, CA, pp. 21-35.
22. Lehman, W., Vibert, P., Craig, R., and Barany, M. (1996). Actin and the Structure of Smooth Muscle Thin Filaments. In Biochemistry of Smooth Muscle Contraction (M. Barany, ed.) Academic Press, San Diego, CA, pp. 47-60.
23. Barany, M. and Barany, K. (1996). Inositol 1,4,5-Trisphosphate Production. In Biochemistry of Smooth Muscle Contraction (M. Barany, ed.) Academic Press, San Diego, CA, pp. 269-282.
24. Barany, M., and Barany, K. (1996). Protein Phosphorylation During Contraction and Relaxation. In Biochemistry of Smooth Muscle Contraction (M. Barany, ed.) Academic Press, San Diego, CA, pp. 321-339.
25. Barany, M., Barany, K. and Giometti, C.S. (1998). Gel Electrophoresis for Studying Biological Function. Analytica Chimica Acta, 372, 33-66.
26. Barany, M. and Barany, K. (2000). Strife and Hope in the Lives of a Scientific Couple. In Selected Topics in the History of Biochemistry Personal Recollections, VI. Comprehensive Biochemistry Vol. 41, (R. Jaenicke and G. Semenza, eds.) pp 91-167. Elsevier, Amsterdam.

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