Archives & Special Collections, Columbia University Health Sciences Library

C. Andrew L. Bassett Papers

BASSETT, C. ANDREW L., 1924-1994. Papers, 1951-1994. 23.33 cubic feet (70 boxes) M-0015

BIOGRAPHICAL NOTE: Charles Andrew L. Bassett, usually known as Andrew Bassett, was born August 4, 1924 in Crisfield, MD. Bassett enrolled in Princeton in 1941 intending to pursue an engineering degree, but in 1943 he was called to active duty with the Air Force Enlisted Reserve. He served as a corpsman with Patton's Third Army, where he received basic medical training that inspired him to undertake a medical career and to specialize in orthopedics.

After the war, Bassett completed additional pre-medical work at Washington and Lee University in Virginia and City College of New York before attending the Columbia University College of Physicians and Surgeons (P&S), earning his MD in 1948.

In 1950, Bassett was an orthopedics resident at Presbyterian Hospital when the Korean conflict called him back to the military. He served in the Navy at the Tissue Bank at the National Naval Medical Center in Bethesda, Maryland. After further training at St. Luke's Hospital (New York, NY), Mary Imogene Bassett Hospital (Cooperstown, NY) and the New York Orthopedic Hospital (New York, NY), he returned to P&S as a Junior Kane Fellow in Orthopedic Surgery in 1953, and in 1955, he joined the staff of P&S and Columbia Presbyterian Medical Center (CPMC). Also in 1955, he earned a Doctor of Medical Science degree from Columbia. Bassett remained at Columbia and CPMC for the bulk of his career, serving as a professor of orthopedic surgery from 1967 to 1982, and as the head of the Orthopedics Research Lab from 1957 to 1986. He was engaged in private practice from 1986 until his death in 1994.

Within orthopedics, Bassett both invented and specialized in the field of bioelectromagnetics. In 1962, he worked with Robert O. Becker to define the electrophysiological base of bone, and then proceeded to devote his career to performing pioneering clinical research exploring the therapeutic uses of pulsed electromagnetic frequencies (PEMFs) most notably in the areas of recalcitrant fractures, nerve regeneration, wound healing and tissue revascularization.

Bassett received numerous awards and prizes for his work, including the Max Weinstein Award from United Cerebral Palsy (shared with J.B. Campbell); the Joseph Mather Smith Prize from Columbia in 1971; and the D'Arsonval Prize for Bioelectromagnetics from the Bio-Electromagnetics Society in 1991. He was also a fellow of the American College of Surgeons and the American Academy of Orthopaedic Surgeons.

In addition to his academic work, Bassett was involved in the commercial side of orthopedics. In 1979 he co-founded Electro-Biology, Inc. (EBI) in order to to produce the Bi-Osteogen device which he had co-designed with Arthur A. Pilla, and following his departure from CPMC and P&S, he moved on to his second venture: co-founding Osteodyne Inc., in Research Triangle Park, NC.

Bassett was a prolific writer and speaker, attended numerous national and international conferences and meetings, served as an expert witness on medical uses of electricity and electro-magnetic waves, and was a member of numerous federal and private committees, including the National Research Council's Committee on Skeletal Research and the Food and Drug Administration's Ad-Hoc Committee on Medical Devices.

Basset died in 1994 in New York of a brain tumor, and was survived by his wife, Nancy; his brother, Govert L. Bassett; three children; and three grandchildren.

ARRANGEMENT/ORGANIZATION:

The collection has been divided into nine series: I. Correspondence and subject files, 1976-1994; II. Correspondence, 1959-1992; III. Grants, 1961-1988; IV. Lectures and Meetings, 1966-1994; V. Legal, 1963-1993; VI. Reprints, 1951-1994; VII. Research materials, 1971-1994; VIII. Patient records, 1969-1988; and IX. Audio-visual materials, 1978-1991.

SCOPE & CONTENT: The papers document Basset's academic career at P&S and his later private practice. There is very little information on his personal life. Included are correspondence; conference papers; research notes; raw data, photographs and x-rays from experiments; publicity files; treatment protocols for specific injuries/illnesses; video and audio recordings; grant applications and reports and other fundraising correspondence; materials from cases where he served as an expert witness, as well as various malpractice suits against him; and a limited quantity of patient records.

Note: The two correspondence series overlap in terms of topics and time periods covered, and researchers should be sure to consult both of them when searching for materials.

Series I. Correspondence and subject files, 1976-1994 Boxes 1-17

Records include correspondence on various topics with fellow orthopedic surgeons (colleagues and friends), professional societies, and government agencies, as well as records relating to grants and other funding sources for experimental projects and research and development records for business Bassett founded or co-founded. There is significant volume of records regarding the following institutions or topics: Bioelectric Magnetics Society (BEMS) (1978-1994); Electrobiology, Inc. (EBI), 1991-1994; and scholarly manuscripts reviewed for publication, (1989-1994). Arranged alphabetically.

Series II. Correspondence and subject files, 1959 – 1992. Box 17-34

Records include correspondence on various topics with fellow orthopedic surgeons (colleagues and friends), professional societies, and government agencies, as well as records relating to grants and other funding sources for experimental projects and research and development records for business Bassett founded or co-founded. There is significant volume of records regarding the following institutions or topics: Electrical therapy (1959-1974); Food and Drug Administration (1963-1988); Johnson & Johnson (1971-1980); and the National Research Council (1964-1970); arranged alphabetically.

Series III. Grants, 1961-1988.

Boxes 34-38

Grant applications and reports produced for various scientific agencies in pursuit of multiple research topics; arranged chronologically.

Series IV. Lectures and Meetings, 1966-1994 Boxes 38-48

Lectures given and meetings attended by Bassett, multiple topics and organizations; arranged chronologically.

Sub-series are as follows:

Sub-series 4.1 (Five folders) General records, 1966-1981.

Correspondence regarding lectures he refused as well as general lecture ideas.

Sub-series 4.2 (9.5 boxes, 3.33 cu. feet) Lectures and Meetings, 1967-1994. Correspondence and other records from meetings attended and lectures given.

Series V. Legal, 1963-1993.

Boxes 48-52

Records of legal cases where Bassett served as an expert witness or was otherwise involved; arranged alphabetically.

Series VI: Reprints, 1951-1994.

Boxes 52-55

Articles on various topics authored or co-authored by Bassett. About one-third of the materials were collected, arranged and indexed by Basset; the remainder were found loose in the files, and arranged chronologically.

Sub-series are as follows:

Sub-series 6.1 (1 box, .33 cu. feet) Binders, 1951-1979.

Transferred from binders to folders, some indexes available; arranged chronologically.

Sub-series 6.2 (2 boxes, .66 cu. feet) Loose, 1951-1994.

Found loose in the box, arranged chronologically.

Series VII: Research materials, 1971-1984. Boxes 56-68

Records documenting Basset's years as director of the Columbia University Orthopedic Research Lab, and his personal and collaborative research, including data sheets, animal record books, and others related materials; arranged alphabetically and then chronologically.

Sub-series are as follows.

Sub-series 7.1: (5 boxes, 1.66 cu. feet) Columbia University Orthopedic Research Lab, 1971-1991.

Annual reports, correspondence, memos, data, protocol documents and other materials from the Columbia University Orthopedic Research Lab; arranged alphabetically and then chronologically.

Sub-series 7.2: (6 boxes, 2 cu. feet) Pulsed Electromagnetic Fields (PEMF), 1971-1984.

Notes and correspondence relating to research by Bassett and others on impact of PEMFs on avian chondrocytes, avian fibroblasts, avian rudiments, avascular necrosis, bacteria, disuse oseteoporosis, spinal cord regeneration, fracture grafts, and other topics. There is significant material related to the following topics: cancerous tumors in mice (1971-1981); radial osteotomies (1974-1981); rat osteoporosis (1976-1979); sciatic nerve regeneration (1978-81); and a skin lesion study (1981). Arranged alphabetically and then chronologically.

Sub-series 7.3: (1.5 boxes, .55 cu. feet) Uncategorized research data, 1960-1976.

Assorted research notebooks and data sheets from an unnamed experiment; arranged chronologically.

Series VIII. Patient Records, 1969-1988. Boxes 68-69

Cases that were either related to ongoing research, followed by Bassett over many years, or may otherwise be of academic interest.

Series IX. Audio-visual materials, 1979-1986. Box 69-70

Audio and video tapes of lectures and television and radio interviews, loose in box.

Sub-series are as follows:

Sub-series 9.1: (8 folders) Photographs, 1979-1985.

A portrait of Dr. Basset, several photographs of PEMF equipment, and examples

of explanatory figures, arranged chronologically.

Sub-series 9.2: (six tapes) Audio tapes, 1979-1986.

Interviews on the therapeutic uses of pulsed electromagnetic fields, the Bi-Osteogen system and ununited fractures.

Sub-series 9.2: (three tapes) VHS tapes, 1985-1991.

Appearances on the *Today* Show, in *By the Year 2000* series, and at a Bioelectromagnetic Society (BEMS) Annual Meeting.

LANGUAGES: English, French, Spanish, German, and Japanese.

ACCESS: The collection is stored off-site. Researchers will need to request this material from Archives & Special Collections at least two business days in advance to use the collection in our reading room. Generally, Archives & Special Collections will not recall more than 6 cartons or 12 boxes at a time.

Because the records include Confidential Health Information (CHI) as defined by Columbia University policies governing data security and privacy, access is allowed only under the terms of Archives and Special Collections' <u>Access Policy to Records</u> Containing Confidential Health Information.

PROVENANCE: Donated by Nancy Bassett, 1994 (acc. #1994.12.01).

PROCESSING NOTES: Processed and finding aid written by Jennifer McGillan, May-November 2010. Duplicates, loose x-rays, previously published photographs and patient records lacking in historical value or research interest were discarded. Photographs and audio-visual materials were separated from correspondence files and made into a separate series.

SUBJECTS - LC

Adey, Ross.
Bassett, C. Andrew L.
Becker, Robert.
Cook, Ian.
Duriez, Jean.
Fell, Honor B., Dame.
Sharrad, William.
Thompson, Roby C.

American Academy of Orthopaedic Surgeons.

Bioelectronics.

Bioelectromagnetics Society (Gaithersburg, Md.)

Bioelectromagnetism.

Bioelectric Repair and Growth Society.

Columbia University. College of Physicians and Surgeons. Dept. of Orthopedic Surgery Columbia University Medical Center. Orthopedic Research Lab.

Electrobiology Inc.

Johnson & Johnson, inc.

Kirlian photography.

Medical devices.

National Aeronautics and Space Administration (U.S.)

National Institute of Health (U.S.)

National Research Council. Committee on the Skeletal System.

National Research Council. Committee on Surgical Devices.

National Science Foundation (U.S.)

Orthopedics – Research.

Orthopedics – United States.

Orthopedists – United States.

Orthopedists – Malpractice – United States.

Strangeways Research Laboratory (Cambridge, England).

United States. Food and Drug Administration. Ad Hoc Committee on Medical Devices.

United States. Food and Drug Administration. Medical Devices Advisory Committee

Visual display terminals.

SUBJECTS - MeSH

Bone and bones.

Bone regeneration.

Electricity.

Electromagnetic Phenomena/therapeutic use.

Electric Stimulation Therapy/methods.

Femur head necrosis.

Fracture healing.

Fractures, Bone/Therapy.

Fractures, Ununited/therapy.

Legg-Perthes Disease.

Magnetic Field Therapy.

Medical Devices.

Osteogenesis.

Osteonecrosis.

Osteoporosis.

Osteotomy.

Wound Healing.

C. Andrew L. Bassett Papers, 1951-1994.

Box and Folder List

SERIES I: CORRESPONDENCE, 1976-1994

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	2-3	W. Ross Adey, correspondence, 1980-1993
	4	American Brittle Bone Society, newsletters and correspondence, 1978-81
	5	American College of Radiology Nuclear Magnetic Resonance (NMR), reprints and correspondence, 1983-87
	6	American Medical Association (AMA) correspondence, 1988-1992
	7	American Academy of Orthopaedic Surgeons (AAOS), Correspondence, 1991-1993
	8	AAOS, "Bone injury, regeneration and repair," from <i>Orthopaedic Basic Science</i> , 1993
	9	Correspondence, B, 1989-1994
	10	Becker, Robert O., correspondence and offprints, 1977-85
		Bioelectric Magnetics Society (BEMS)
2	1-2	J. Behari, peer review and correspondence, 1981-1992
	3	Bioelectric Magnetics Society (BEMS) Awards Committee, 1992- 1993
	4-5	Board of Governors, correspondence, minutes, and strategic planning, 1991-1992
	6	BEMS and Bioelectric Repair and Growth Society (BRAGS) board correspondence and minutes, 1992-1993
	7	Board of Governors meeting, June 1992
	8	Board correspondence on membership topics, 1993
	9	Board of Governors correspondence, 1993-1994
3	1	Newsletter and membership correspondence, 1986-1991
	2-3	Membership correspondence and applications, August 1993
	4	Membership correspondence and applications, Sept. 1993
	5	Membership correspondence and applications, Dec.1993
	6	Membership correspondence and applications, 1994
	7	Newsletter, Dec. 1978 – July 1982, inc.
	8	Newsletter, Jan., March, May, 1983
	9	Newsletter, Feb. – Nov. 1984, inc.
	10	Newsletter, Dec. 84/Jan. 85 – Dec/Jan 86 – inc.
	11	Newsletter, Jan/Feb 1987 – Sept/Oct. 1987
	12	Newsletter, Jan/Feb 1988 – Sept/Oct 1988
	13	Newsletter, Jan-Dec 1989

	14	Newsletter, Jan/Feb 1990 – Sept./Oct. 1991 – inc.
	15	Newsletter, Jan. – Dec. 1992
	16	Newsletter, Jan/Feb 1993 – Jan/Feb 1994
4	1	Bioelectric Repair and Growth Society (BRAGS), correspondence, 1992-1994
	2	BRAGS, Program committee, 1993
	3-4 5-6	BRAGS Council, incl Charles Polk book chapter award submission, 1993 Society for Physical Regulation in Biology and Medicine (SPBRM), 1993- 1994
	7	Correspondence, general, "C", 1989-1994
	8	Rugero Cadossi, 1991-1993
	9	Irwin "Iccy" Clark, 1988
	10	"Current Comments" (10): 3-11, 9, March 1987
	11	Richard Cruess, correspondence, 1976-77
5	1	Correspondence, D, 1993-1994
	2	Dental, electromagnetic fields and dentistry, 1993
	3	H. M. Dick, Acting Chairman [of CPMC Orthopedic Dept.], 1983-1994
	4	Dr. Harvey H. Doemland, 1979
	5	de Bastiani, Protocol, Sheep hip, 1984-1990
	6	Giovanni de Bastiani, correspondence and reprints, 1980-1988
	7	W.J. Ross Dunseath Jr., 1991-1992
	8	Luiz R. Duarte, 1982
	9	Jean Duriez, 1977-1994
	10-11	Correspondence, E, 1992-1994
		Electrobiology, Inc. (EBI)
	12	EBI Brochure, 1991-1993
	13	Electrobiology, Inc. (EBI) / Osteodyne, Inc. (ODI), 1993
	14	Consulting agreement, EBI, CALB, 1990
6	1	EBI Consultant agreement, 1992
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	3	John Moore correspondence, 1994
	4-6	Jim Norris, EBI, 1990-1993
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	9	Dan Page, correspondence, 1992-1993
7	1	EBI, Jim Pastena, 1993-1994
	2	EBI National Sales mtg, Chantilly, VA, 7/9-11/1993
	3	Response to Blue Cross/Blue Shield America re: TEC Technology
		Assessment process, Electrical Bone Growth Stimulators
	4	(non-invasive and implantable), 8/24/1992
	4	Response to Blue Shield prep docs, 1992

	5	EBI Safety file, 1993
	6-7	EBI Symposium Series, 1990-1991
	8	American Medical Electronics, various devices, c. 1986
	9	Correspondence, F, 1985-1994
8	1-3	Food and Drug Administration (FDA), Figueroa, 1994
	4	Dr. Sylvia Fitton-Jackson, 1992
	5-6	Dr. Michael H. Flint, 1978-79
	7	Correspondence, G, 1985-1994
	8	Alte Gjelsevik, 1994
	9	Reba Goodman, 1989-1991
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	5-6	International Symposium on Wolff's Law, Berlin, April 4-6, 1990
	7	Hiromoto Ito, 1987-1992
	8	Correspondence, J, 1987-1993
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	10 11	Correspondence, K, 1987-1992 Correspondence, L, 1976-1994
	11	Correspondence, L, 1970-1994
10	1	General lecture material/philosophy, 1961-1990
	2	General lecture materials, c. 1977
	3	Whole Body NMR Spectrometer, Los Alamos, NM, 1968-1984
	4	Richard A. Luben, 1982-83
	5	Correspondence, M, 1988-1993
		Manuscripts, scholarly
	6	American Academy of Orthopaedic Surgeons (AAOS), Long term results of pulsed electromagnetic fields (PEMF) treatment in congenital "pseudoarthrosis", 1989
	7-8	Long term PEMF results, Calcified Tissue International, 1990-1991
	9	Manuscript,. D'Arsonval Prize, bioelectromagnetics, 1991
11	1-2	M. Habal, bone graft, 11/17/1989 [1989-1992]
	3	Pulsing electromagnetic field treatment, tables and <i>Journal of American Medical Association</i> (JAMA) article, 1980-82
	4-5	Research papers, data and statistics, 1977-80
	6	Treat Ununited Tibia Diaphyseal Fractures w/ PEMF, Journal of
		Bone and Joint Surgery, Bassett, Mitchell and Gaston,
	7	1980
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	7	Microwave News, issues and correspondence, 1984-1990
	8	Granger Morgan., 1991-1992
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	13	National Academy of Sciences, Issues in Science and Technology, 1990
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14	1	Letters to the Editor, newspapers, 1993
	2	New Yorker, Annals of Radiation series, June 1989
	3-4	S.E. Kold Newmarket, 1985-1993
	5	Biomet, N.L. Noblett, correspondence, 1988-1993
	6	Correspondence, O, 1977
	7	Brian T. O'Connor, Oswestry, 1981-86
	8	Lidomor Guimares Oliveira, 1993-1994
	9	Paul Orlin, 1981-82
	10	Tissue repair stimulator traveler, 1973
	11 12	John Osmundson, NY Times, 1960-1986
	13	Osteoporosis articles and correspondence, 1979-1983 Correspondence, P, 1991-1993
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15	1	Patient consultations, 1988
	2	Osvaldo Patino, 1994
	3	Stephen Perren, 1976-79
	4	Philips electron microscope, 1987
	5	Charles Polk, 1987-88
	6-7	Publicity, Pulsed electromagnetic fields (PEMFS), 1977-83
	8	Publicity, Lally Wemouth, 1980
	9	Protocol, Cancer, 1980
	10	Electrobiology Inc, Protocol Comparative effects of Bi-OST EMF vs. conventional medicine on delayed unions, 1980
	11	Modification of epidermal and dermal healing with PEMFs protocol, 1981

- 12 Internal Review Board, protocol, post-menopausal and senile osteoporosis, 1980
- Protocol, bone graft, study at Orthopedic Research Lab (ORL), Columbia, 1981
- 14 Protocol, Paget's disease, 1980
- 15 Periodontal disease protocol, 1980
- 16 Correspondence, R, 1992-1994
- **16** 1 Eric Radin, 1972-1989
 - 2 Rinsky/Halpern/Nagel, Stanford University, 1977-79
 - 3 Jorge Romanelli, Buenos Aires, 1993
 - 4 Clint Rubin, 1986-1993
 - 5 Correspondence, S, 1991-1994
 - 6 Robert Schmuckler, 1991-1992
 - 7-8 W.J.W. Sharrad, 1978-1993
 - 9 Project Sanguine, U.S. Navy, 1981
 - 10 Roberto Stanganelli, 1994
 - 11 Correspondence, T, 1990-1994
 - 12 Electrobiology, Inc. (EBI), osteoporosis, F.L. Tabrah, 1986-1990
 - 13 Roby C. Thompson, 1969-1989
- 17 Union of Concerned Scientists, 1992
 - 2 Correspondence, V, 1991-1993
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 - 4 Correspondence X, Y, Z, 1987-1994

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- 5-6 Ameia Yan Patton, 1988-1991
- 7 Ameia Yan Patton, thesis, 1986
- 8 American College of Surgeons, 1989
- 9-10 American Red Cross, Bone Banking, 1989-1990
- 11 Apex Medical, Inc., Larry Inman, 1988
- 18 1 Articles and conference papers, 1983-1990
 - 2 Mixed articles, electric and magnetic fields, biological studies, 1983-1988
 - 3 Mixed graphs and articles, c. 1987
 - 4-7 Association for Advancement of Medical Instrumentation (AAMI), 1969
 - 8 Forms, pre-op and post-op, for avascular necrosis (AVN), 1982
 - 9 AVN, Bassett active working papers, 1984
 - 10 Possible slides for AVN paper, n.d., c. 1984
 - 11 Avascular necrosis article, correspondence, 1988
- 19 1 American Scientist, magnetic control of disease, 1986-87
 - Govert L. Bassett, Osteodyne, correspondence and designs, 1987-1990
 - 3 L.S. Bassett and G.L. Bassett, Osteodyne, 1989

	4 5 6-7 8 9 10 11	Biocodes, Inc., correspondence, reprints, articles, 1964-1990 Bioelectron, Memo to file, 1988 Bioelectric Research Foundation, P&S, Jewel and Lew Garlick, 1974-77 Bioelectric Research Center funding, 1988 Bioelectromagnetics Society, 8 th Meeting, 1986 Richard Brentall, 1987 CCI, competing technologies, electromagnetic fields, 1984-88
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	5	Mixed correspondence and notes, 1984-1992
	6	Mixed correspondence, 1985-1992
	7-8	Correspondence, 1989-1990
21	1	Columbia University Statement of Policy, proprietary rights in the intellectual products of federal activity, 11/5/1984
	2	Der Orthopade (Bauer) Bassett ms., 1983
	3	Elective Dosimetry of Different Tissues exposed to Pulsed
	4	Electromagnetic Fields (PEMFs), w/ Ian Cook, 1988
	4 5	Dosimetry Instruments, 1988-89 Rene Duriez, 1978-80
	6	Easter Seal telethon, Los Angeles, CA, 3/24-3/25/1979
	7-9	Electrobiology, Inc. (EBI) Meeting, 5/11/1979
		EBI Chris Weatherly, 1981-82
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	13	EBI letter re: budget increase, 1/6/1982
22	1	EBI/CALB license agreement, 1986-1991
	2	EBI nondisclosure agreement, 1988
	3	Records transferred to EBI, 1990
	4	Judge Warren Eginton, 1988
	5	Electricity article, McGraw-Hill Encyclopedia, 1989
		Electrical therapy correspondence
	6	Misc., 1959-1969
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	9	Robert O. Becker, 1961-1969
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	11	DeMent, Norman, Allan, 1971
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	4	Peter Digby, offprints and photocopies, 1965-68
	5	H.J. Hamburg, 1971

	6	Don L. Jewett, 1971-73
	7	Lent C. Johnson, MD, piezoelectrical letter, 1963
	8	Aime' Limoge, n.d.
	9	Sergio Mascarenhas, 1972-74
	10-11	Joseph Watson, 1972-1979
	12-13	Electromagnetic correspondence, 1956-1967
	14	Electrical modification of disuse osteoporosis, 1974
	15	Electrostimulation for auditory diagnosis and therapy, Hearing
		Instruments, v. 35, no. 1, E. Robert Libby, 1984
24	1	ESBI Inc. general correspondence, 1971-75
	2	National Research Council, surgical devices, 1955-1970
		Food and Drug Administration (FDA)
	3	Ad Hoc Committee on Medical Devices, notes, reports,
		correspondence, etc, 1963-70
	4-6	H.R. Bill 6788 (1963 version) correspondence and notes, 1964
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	4	Task force on orthopaedic devices, 1971
	5	Medical devices, 1971-72
	6	Ad Hoc Committee on Medical Devices, Agenda and minutes, 1971
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	2	Medical Device Advisory Committee Meeting, 10/16/72
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	4	Symposium of FDA Regulations for medical devices, 1987
	6	N.K. Mishra, 1987-89
	7	Mays Swicord, 1988
	8	Osteodyne, 1988-89
	9	Steven Day, Transcript, Orthopedics and Rehab Devices
		(Howmed), 1989
	10	Orthopedics Advisory Panel, 1989
	11	Dame Honor Fell, retirement, 1970
	12	Victor M. Fellus, Therafield Holdings, LTD, 1988-89
	13	Geoffrey Garth, 1986

	14	Dr. Reba Goodman, pulse traces, skin (?), 1984
27	1 2 3 4-5 6 7-8	Gordon Research conferences, 1963 Draft, letter to VP elect Gore, n.d., c. 1992 L.R. Hefter, 1988-89 IBM Visual Display Terminals (VDT) safety, 1984-89 Internal Metal Fixation, 1982-84 Manuscript, Issues in Science and Technology National Academy of Sciences Working papers, 8/89 (1-2 of 4)
28	1-2 3 4	Manuscript, Issues in Science and Technology National Academy of Sciences Working papers, 8/89 (3 and 4 of 4) Hiromoto Ito, 1981-1991 Jahn, Theodore, 1965-74 Johnson & Johnson
	5 6 7 8 9 10	Johnson and Johnson, Cambridge Consultants Ltd, 1971-72 ESB, Inc. Research Grant, 1971-72 Project proposal (fracture), 1971-73 Consultancy, 1969-72 Correspondence, general, 1970-74 Columbia University Orthopedic Research Lab "Debacle," cancellation of funding, 1973-76, 1980 (1/2)
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30	1 2 3 4	Mercer Musatti de Bastiani, 1984-1990 Metastic tumors of bone, 1975-78 Denis Moran manuscript, n.d. Clinical orthopedics, Musso, 1985

- National Air and Space Administration (NASA), Manned space flight, electromagnetic field, modification of bone loss during weightlessness, 1978
 NASA Ames, Dan Young, weightlessness and primates, 1978-79
- 8 Lee Bassett Osteoprosis, NASA Study, 1979

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	7	Surgical devices, 1969
	8	Surgical devices, 1970
32	1	Nerve stimulation studies, c. 1974
	2	Neural Regeneration, 1963-1965
	3	New Yorker cartoon, electromagnetic therapy and iron supplements,
		Schwadron, n.d.
	4	Non union A/O compression plate technique, unpublished, n.d.
	5	Organogenesis, Inc., 1987
	6	James Ott, Letter, Novar Electronics Corp, 1975
	7	Sir Dennis Paterson, correspondence, 1977
	8	Painting, correspondence, 1973
	9-10	Patents, 1975-1989
	11	Klivington, Eletcrobiology, Inc. patent, 1983
	12	Pulsed Electromagnetic Fields (PEMFs) and electricity patents, 1984-1990
	13	State University of New York-Stony Brook patents, 1989
	14	Notes, "PATH" conference, 1986
	15	Role of patient management in success of PEMFs in ununited fractures, 1983
	16	Effect of external PEMFs on healing, McGrath, et al, working papers, 1984
	17	British Journal of Bone and Joint Surgery (JBJS), Treating Femoral Head osteonecrosis with PEMFs, 1985-86
	18	JBJS and American Orthopaedic Association (AOA) Meeting, Treating Femoral head with PEMFs, CALB, MSA, SNL, 8/1985
33	1	Notes, PEMFs and arteriosclerosis, c. 1987
55	2	P&S Training grant correspondence, 1971
	3	Pilla, Electrobiology grant, 1979
	4	Plastics, Dow Corning, 1955-60
	5	Positron Industries, 1989

- 6 Powerlines, 1987-89
- 7 CRC Review correspondence, 1987-1991
- 8 Ellen Camerieri, Riverside Senior Citizens, 1988
- 9 Joseph Mather Smith Prize, 1971
- 10-13 Stinchfield Chair correspondence, 1972-73
- 34 1 P&S Stinchfield Chair, Rockefeller, 1976
 - 2 Stinchfield Chair correspondence, 1974
 - 3-4 Strangeways research laboratories, correspondence, 1966-69
 - 5 State University of New York (SUNY), 3/28/1988
 - 6 Correspondence, Takagishi, 1983

Series III. Grants 1961-1988

- 7 Mechanism of bone formation 1961-62
- 8 HRC-1-149 Annual reports, 1961-67
- 9 Laboratory approaches to certain neural deficits, NIH application, 1962
- 10 Arthritis and metabolic disease, 1963
- Equipment grant for orthopaedic research laboratories to develop electron micrographic facilities, 1963-1964
- Bioelectric phenomena controlling bone growth, 1963-66
- United States Public Health Service (USPHS) career grant, osteogenesis, 1964-65
- Bioelectric phenomena controlling bone growth, 1965-80
- Final report, effects of electric currents in osteogenesis, 1965
- Bioelectric phenomena controlling bone growth, 1968-71
- 17 Bioelectric effects in teeth and accessory structures, 1968
- 18 Effects of electrostatic fields on cell behavior, 1969-72
- 19 [Contract no.] DADA 17 -71-C-10902, Army report, 1971-73
- 35 1-2 Bioelectric phenomena controlling bone growth, 1971-75
 - 3 Bioelectric phenomena controlling bone growth, 1971-76
 - 4 Bioelectric effects in teeth and accessory structures, 1971-76
 - 5 Electrical approaches to cancer control, 1972
 - 6 Bioelectric phenomena in tooth and alveolar bone, 1972
 - 7 Dept. of Army, electrical stimulation of fracture healing, 1973
 - National Institute of Health (NIH) grant proposals, Neural grant budget, 1974
 - 9 NIH grant proposals, bone growth, 1974
 - Bioelectric phenomena and bone growth, 1974-75
 - 11 ICHI-CALB Investigation of E.M. (electromagnetic) Bone Format, 1974-1980
 - 12 Electrical stimulation in the orofacial complex, 1975-76
 - 13 Electromagnetic modification of disuse osteoporosis, 1975
 - 14 Article on tissue regeneration, 1975
 - NIH Dental working papers, 2/1976

36	1	National Science Foundation grant, 1976
	2	Research on improved electromagnetic instrumentation to accelerate bone repair, 1976-80
	3	National Advisory Dental Research Council, 1976
	4	Electromagnetic fields and the dentoalveolar complex, 1977-78
	5	Grant no. AM 07822-14 Continuation grant working papers, 1977
	6	Grant no. AM-07822, 02/01/78-01/31/83, working papers, 1/77
	7	NASA grant electromagnetic treatment of osteoporosis, 1977
	8	Electromagnetic treatment of osteoporosis, 1977
	9	PEMFs and osteogenesis, National Science Foundation (NSF), 1978
	10	Bioelectric phenomena controlling bone growth, 1978
	11	Electromagnetic treatment of osteoporosis, 1978-79
	12	Bioelectric phenomena controlling bone growth, 1978-81
	13	Biomedical effects of pulsing electromagnetic fields, 1978-79
37	1	Electromagnetic modification of disuses osteoporosis, NASA final report, 1978
	2	National Science Foundation grant renewal, 4/16/1978-10/15/1979
	3	Protocols, multiple topics, 1978-79
	4	NASA technical reports, Jan- Oct, 1978
	5	Biomedical effects of pulsing electromagnetic fields, 1978-79
	6	Studies of hydroxyl apatite as a bone graft substitute, 1978-79
	7	Biological effects of pulsing electromagnetic fields and their clinical implications, 1978-80
	8	Grant no. AM07822-16 Continuation, working papers, 11/78
	9	Misc. grant materials, dentistry, n.d. but c. 1979
	10	The effect of pulsing electromagnetic fields on cellular calcium and calcification of non-unions, n.d., c. 1979
	11	Mechanisms of non-union repair with pulsing electromagnetic fields, n.d. c. 1979
	12	Effects of pulsing electromagnetic fields (PEMFs) on peripheral nerve regeneration, Kort and Bassett, 1980
	13	Grant proposal, K. Braun protocol, Avascular Necrosis, EBI 46, 1980
38	1	Biological effects of pulsing electromagnetic fields and their clinical implications, 1980-81
	2	Biomedical effects of pulsing electromagnetic fields, 1981
	3	Biomedical effects of pulsing electromagnetic fields, application, 1981
	4	Biomedical effects of pulsing electromagnetic fields, 1981-82
	5	The effect of electromagnetic fields on wound contraction and the myofibroblast, n.d., c. 1981
	6	National Institute of Health – AM – 07822 – Grant renewal, 1981-1984
	7	Bioelectric phenomena controlling bone growth, 1981
	8	Management of problem non-unions in the proximal femur with pulsed

electromagnetic fields (PEMFs), 1982

- 9 Progress report, biomedical report of PEMFs, 1983
- 10 Effects of pulsed electromagnetic fields (PEMFs) on fresh fracture repair, 1983-1984
- Effects of pulsed electromagnetic fields on fresh fracture repair, 1983-85
- Biomedical effects of pulsing electro magnetic fields, 1983-84
- 13 Lancet article, Barker, Sharrad, et al, 1984
- 14 Contributions of tabulation and pulsing electromagnetic fields to neural regeneration, 1988
- 15 Grant narrative, PEMFs and bone formation, n.d.
- Physiology basis of rehabilitation medicine, Darling and Downey, n.d.

Series IV. Lectures and Meetings, 1966-1994

Sub-series 4.1 General records, 1966-1981

- 17 Lectures given/attended, 1966-1970
- 18 General lecture material, 1976-85
- 19 Lectures refused, 1978-82
- 20 Lectures and meetings refused, 1978-79
- Lectures given, misc. related correspondence, 1981

Sub-series 4.2 Lectures and Meetings, 1967-1994

- 39 1 Diffuse currents meeting, Milwaukee, Wis., 1967
 - 2 NY Academy of Science, Conference on Solid State Dynamics, 1967-68
 - Influence of Forces on Bone at Current Concepts of growth and development pertinent to orthodontics and pedodontics (summer course), 6/26-30/1967
 - 4 Electromechanical Factors controlling bone structures, Brown University, 2/22/1968
 - 5 Northeastern Society of Orthodontists, 3/10-13/1968
 - 6 Electrical Changes in Bone, Albert Einstein College of Medicine, 5/22/1968
 - 7 American Association of Orthopedic Surgeons, Pathophysiology of Trauma, 10/30-11/2/1968
 - 8 State University of New York (SUNY) Downstate, 1968-70
 - 9 Biological effects of Piezoelectricity, Yale, 1969
 - Oral-Facial Growth & Development Program, Nat'l Institute of Dental Research, 2/25-26/1970
 - 11 Current concepts of osteogenesis, Hospital for Special Surgery, 11/5/1970
 - 12 Bioelectric phenomena in bone, Walter Reed Army Hospital, 12/17/70
 - Course in Medicine for Dental Undergraduates, College of Physicians and Surgeons (P&S), 1970

- 14 Grand Orthopaedic Conference, Hospital for Joint Disease and Medical Center, 1970
- 15 St. Albans Naval Hospital, 1971
- Institute of Electrical and Electronics Engineers (IEEE) A Surgeon's View of the impact of medical devices, 2/17/71
- 17 New York Academy of Medicine, Combined Biomedical Engineering Ortho Sectional meeting, Feb. 1972
- 18 Catholic Medical Center, 2/9/72
- 19 Craniofacial, Nijmegen, May 1972
- 20 IEEE, Rockefeller University, 6/14/1972
- New York Academy of Sciences, Lecture and conference paper, 1973
- Lecture and symposium, Clemson University, Prostheses and Tissue, 5th Annual symposium on Biomaterials, 4/15-18/1973
- 23 Dr. Kelly lecture, Atlanta, 9/21/74
- American Institute of Chemical Engineers (AICHE) Symposium Bioelectric Phenomena, Dec. 1974
- 25 Research Society of America, Sigma Award (rec'd), 1974
- Yale University, Review: Analysis of Clinically Relevant Research on Osteosynthesis, 5/23/75
- 27 Canadian Research Society, Ottawa, 5/26/1975
- 28 International Society of Orthopaedic Surgery and Traumatology (SICOT)
 Conference, 1975
- Electrical Phenomena in bones, Frontiers of Science, University of Utah, 1976
 - J. Vernon Luck Research Society, Intensive review of Orthopaedic Surgery, 1976
 - 3 29th Annual Conference on Engineering in Medicine and Biology, Boston, 11/9/1976
 - 4 Peter B. Brigham Hospital, 12/7/1976 [1976-77]
 - 5 Annual Sigma X Initiation dinner, Rensselaer Polytechnic Institute, 5/6/1977
 - 6 New Horizons in Physics 1977, New Paltz, 11/3/1977
 - National Science Foundation, R.S. Atkinson, Washington, D.C., 12/4/77
 - 8 Navy meetings, 1/23/78 and 5/27/78
 - 9 Royal Victoria Hospital, McGill University, R.L. Cruess, 4/10/78
 - Advances in Medicine, London, England, 7/23-28/1978
 - Resources for Basic Science Educators, Monterey, CA, 9/17-22/78
 - 12 Conference on Electrical and Magnetic Control of Musculoskeletal Growth and Repair, 9/18-20/1978
 - Orthopedic/Rehab Conference, Kingsbrook Jewish Medical Center. 12/15/78
 - 14 SICOT, Kyoto, Japan, 1978
 - Oral Biology, Dental school, 1/4/79
 - Gordon Research Conferences, Electrochemistry, 1/7-12/79
 - 17 Mass. General Hospital, Boston, 1/12/79

- 18 American Academy of Orthopaedic Surgeons (AAOS) Workshop Atlanta (Brighton), 3/15-17/79 19 AAOS Continuing Education, Monterey, CA, 4/5-9/1979 20 American Association of Endodontists, Atlanta, 4/26/1979 21 Trauma Workshop, New York, 5/45/1979 22 Electrochemical Society, 5/6-11/1979 International Kirlian Research Associate (IKRA), 6/8-10/1979 1 2 2nd Meeting of the European Society of Biomechanics, Strasbourg, France, 9/12-14/1979 3 British Orthopaedic Association, Sheffield, 9/26-28/1979 4 NYU Seminar, Developments in non-intrusive electrostimulation, 11/15/79 5 Huntington Ortho Group, 11/28/1979 6 Einstein, Philadelphia (Pashman), 12/6/1979 7 Clemson IBS, Effects of low field strength pulsing electromagnetic fields on skeletal tissue, Bassett, Pawluk, 1979 8 IV Congress Internacional de Ondontologia, 1979 9 Becker, post-graduate course on Mechanisms of Growth program, 1979 10 Rehabilitation Symposium, Ontario, 1979 Columbia University School of Journalism, 2/19/1980 11 12 University of Pennsylvania, New Bolton Center, Kennett Square, PA. 2/28/80 Royal Society of Medicine, London, England, 4/1/1980 13 2nd International Symposium on Tissue Culture in Medical Research, 14 Cardiff, Wales, 4/1-3/1980 15 Symposium, Verona, Italy, 4/25/1980 Der Orthopadischen Klinik und Poliklinik der Universität Heidelberg, 16 Germany, 4/28/1980 17 ABC Travelling Fellows, New York, NY, 5/13/1980 Symposium on electrical stimulation of non-union, A. Einstein College of 18
- (SECOT), 8/1980 20 Cornell University, Ithaca, NY, 9/10/80

Medicine, 6/8/1980

- The Hip Society Summer Meeting, New York, NY, 9/12/80
- 22 Chinese delegation, Biomedical Engineering, Columbia University Orthopedic Research Labs, 9/22/1980
- Johns Hopkins Children's Hospital, Baltimore, Grand Rounds, 12/6/1980

XIII Congreso Nacional Sociedad Española Orth. Traumatologia

- NYU Dental Center, Institute for Dental Research, Biological Effects of PEMFs, 1980
- Nippon Medical School, 1980

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- AAOS 48th Annual Meeting, Las Vegas, NV, 2/26-3/3/1981
- 27 First Annual Meeting of the Bioelectrical Repair and Growth Society (BRAGS), 11/9-11/1981

- **42** 1 AAOS Meeting, New Orleans, 11/21-26/1982
 - 2 Colloquium, NIH, Biomedical Applications of Electromagnetic (EM) fields, Science Applications, Inc., Jan. 1983
 - 3 Orthopedic Research Society (ORS), Annual Meeting, 1983
 - 4 AAOS, Annual Meeting, Anaheim, CA, 1983
 - 5 American Orthopaedic Association (AOA), 96th Annual Meeting, Hot Springs, VA, 6/27-30/1983
 - 6 Puerto Rico Medical Association, 9/2-4/1983
 - 7 South Carolina Orthopedic Association, 9/8-11/1983
 - 8 University of Texas Medical Branch (UTMB) Visiting Green Scholar, Marine Biology, Galveston, TX, 9/11-15/1983
 - 9 Bioelectric Repair and Growth Society (BRAGS), 3rd Annual Meeting, San Francisco, CA, 10/2-5/1983
 - 10 Italian National Congress of the Society of Rehabilitation and Physiotherapy (13th Annual), Verona, Italy, 10/27-29/1983
 - 11 X Symposium Internacionale de Traumatologia Mapfre, Madrid, 11/24-26/1983
 - Boston Orthopedic Club, lecture, 2/27/1984
 - Gordon Research Conference, Bioengineering and Research Science, 8/6-10/1984
 - NY State Society of Orthopaedic Surgeons, 5/9-13/1984
 - 15 American Paralysis Association, International Symposium on Central Nervous System, 5/20-23/1984
 - Workshop on Basic Biology Applications, 6/1-2/1984
 - 17 Round table, Invasive or non-invasive electrical stimulation of fractures, SICOT, London, 9/30-10/05/1984
 - ORS 30th Annual Meeting, "PEMFs on Fresh Canine Cancellous Bone Grafts," *Journal of Bone and Joint Surgery*, 1984
 - 19 AAOS, lecture on fractures, Atlanta, GA, 2/9-14/1984
 - Association for the Advancement of Medical Instrumentation (AAMI) Meeting, Boston, 5/4-8/1985
 - 21 Bioelectric Magnetics Society (BEMS), 7th Annual Meeting, 6/16-20/1985
 - AOA Coronado, CA, Transactions, *Journal of Bone and Joint Surgery*, Fall 1985
- **43** 1 BRAGS, 5th Annual Meeting, Boston, MA, 10/13-16/1985
 - New York Academy of Sciences, Colloquium in Biological Sciences, cellular signal transduction, 11/4/1985
 - 3 AAOS Orthopedic Research Society, 32nd Annual Meeting, New Orleans, LA, 1986
 - 4 BEMS, 8th Annual Meeting, Madison, WI, 1986
 - Bone growth & electricity: Italy and USA joint meeting on advances in orthopaedic surgery and traumatology, May 1986
 - 6 International Symposium on Bone metastases, Rome, Italy, 1986
 - 7 American Orthopedic Association, 99th Annual Meeting, 1986
 - 8 BRAGS, 6th Annual meeting, Utrecht, Netherlands, 10/19-22/1986

- 13th Congress Latin American Society of Orthopaedics and Traumatology (SLAOT), 1986
 American Academy of Orthopaedic Surgeons and Orthopaedic Research Society Annual Meeting, 1/19-22/1987
- Lecture, U. of Minnesota, Roby Thompson, 3/19-21/1987
 Seminar, E.I. DuPont de Nemours and Company, 4/22/1987
- P&S Alumni Meeting, 9th Annual Dean's Day Symposium Certificate, 5/7-9/1987
- 14 Electrobiology, Inc., National Sales Meeting, Parsippany, NJ, 6/6/1987
- BEMS, 9th Annual Meeting, Portland, OR, 6/22-25/87
- BRAGS, 7th Annual Meeting, Toronto, CA, 10/11-14/1987
- 17 Lecture, IEEE Rockefeller University, 12/9/1987
- BEMS, 10th Annual Meeting, Stamford, CT, 6/19-24/1988
- 19 Paralysis project, Monterey, 7/7-10/1988
- **44** 1 BRAGS, 8th Annual Meeting, Washington, D.C., 10/9-12/1988
 - 2 BRAGS, 9th Annual Meeting, Cleveland, OH, 9/17-20/1989
 - BEMS, 11th Annual meeting, Tucson, AZ, 6/18-22/1989
 - 4 Institut de Recherché sur les Maladies du Squelette, correspondence, conseil scientifique, 1989
 - 5 Elettrobiologia oggi in onore de Luigi Galvani, U.Bologna, 4/14-15/1989
 - 6 2nd Dresden Symposium of Medical Academy, Carl Gustav Carus, 5/9-12/1989
 - 7 Symposium, Bone grafts and bone substitutes, Tampa, FL, 1/26-28/89
 - 8 AAOS Annual Meeting, New Orleans, 2/8-13/1990
 - 9 BEMS, 12th Annual Meeting, San Antonio, TX, June 1990
 - American Society of Bone and Mineral Research, Atlanta, 1990
 - BRAGS, 10th Annual Meeting, Philadelphia, 1990 (1 of 3)
- 45 1-2 BRAGS, 10th Annual Meeting, Philadelphia, 1990 (2 and 3 of 3)
 - Orthopaedic Research Society, 2/17-20/1991 and American Academy of Orthopaedic Surgery, 2/20-25/1991
 - 4 Transactions, Vol. XI Bioelectric Repair and Growth Society (BRAGS), 11th Annual Meeting, Arizona, 1991
 - 5 BRAGS meeting, Scottsdale, Sept. 1991
 - 6 American College of Surgeons, 77th Annual Clinical Congress, Oct. 1991
 - 7-8 BEMS 13th Annual Meeting, Utah, and other correspondence, 1991-1992
 - 9 BEMS Board Meeting, 2/7-9/1992
 - First World Congress for Electricity and Magnetism in Biology and Medicine, 6/14-19/1992 (1 of 3)
- 46 1-2 First World Congress for Electricity and Magnetism in Biology and Medicine, 6/14-19/1992 (2 and 3 of 3)
 - 3 BEMS Board meeting, Washington, DC, 2/6/1993
 - 4 Orthopedic Research Society meeting, San Francisco Hilton, 2/14-17/1993
 - 5 AAOS Annual Meeting Emerging Technologies, Feb. 1993

- Dual-use Technologies and Applications Conference, Mohawk Valley Engineers/SUNY Rome, 5/24-27/1993
- 7 American Orthopedic Association Meeting, Coronado, CA, 6/6-9/1993
- 8 BRAGS, Program and Council Meeting, Fishkill, NY, 6/6-7/1993
- 9 BEMS, 15th Annual Meeting, Biltmore, LA, 6/13-17/1993
- 10 Portland Bone Symposium, 7/21-24/1993
- 47 1 BRAGS, Special Council Meeting, Newark, 7/31-8/1/1993
 - 2-3 BRAGS Meeting, Dana Point, 10/11-14/1993
 - 4 Argentine Congress, Asociacion Argentina de Ortopedia y Traumatologia, Buenos Aires, 11/29-12/3/1993
 - 5 BEMS Winter board meeting, Washington, D.C., 2/4-6/1994
 - 6 40th Annual meeting of the Orthopedic Research Society, New Orleans, 2/21-24/1994
 - American Academy of Orthopaedic Surgeons (AAOS) Annual Meeting, Exhibit correspondence, 2/24-3/1/1994
 - 8 AAOS Annual Meeting, Exhibit forms and misc. exhibit items, 2/24-31/1994
 - 9 AAOS Exhibit, New Orleans, Feb. 1994
- 48 1-2 BEMS Meeting, Sheraton Copenhagen, Denmark, 6/12-16/1994
 - 3 Society for Physical Regulation in Biology and Medicine (SPRBM) Meeting, Crystal City, Arlington, VA, 10/14/1994

Series V. Legal, 1963-1993

- 4-7 C. S., 1963-1985 (1-4 of 8)
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 - 4-6 P.T., 1986-89
 - 7 Legal, misc, 1985-1990
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- 52 1 Motorola-Reynard v. NEC America, 1993-1994 (5 of 5)
 - 2-4 Motorola-Reynard v. NEC America, Transcripts, 1993

Series VI. Reprints, 1951-1994

Sub-series 6.1 Binders, 1951-1979

- 5 Reprint index, n.d.
- 6 Reprint index, fragments, 1969-73
- 7-8 Binder, vol. 1, w/ index, 1951-59
- 9 Binder, vol. 2, w/index, 1960-66
- 53 1-2 Binder, vol. 3, w/index, 1967-79

Sub-series 6.2 Loose, 1951-1994

- 3-4 Loose, 1951-59
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- 7-8 Loose, no index, 1970-79
- Reprints, with partial index, various topics, 1979-1985
 - 2-3 Loose, 1980-89
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 - 5 Loose, various topics, 1962-1994
 - 6 Loose, various topics, 1968-1994
 - 7-8 Wolff Symposium, assorted reprints, 1967-1990
 - 9 Misc Society transactions, 1970-1985
- 55 1 Abstracts, Japanese Committee of Electrical Enhancement of Bone Healing, 1980, 1985
 - Bone healing with electrical and electromagnetical stimulation, Dresden, Germany, 5/2-5/1984
 - 3 CRC review, report and reprints, 1980-88
 - 4 Mechanocell, reprints, 1989-1990
 - 5-6 Therapeutic Uses of Electric and Magnetic Fields in Orthopedics, book chapter, Carpenter, Academic Press, 1991 1994
 - 7-9 Electrical Factors in a Fracture Repair, book chapter, 1992-1993

Series VII. Research materials, 1971-1994

Sub-series 7.1 Columbia University Orthopedic Research Lab, 1971-1982

- Animal record book, orthopedic research lab, 1971
 - 2 Animal record book, orthopedic research lab, 1972
 - 3 Animal records, rats, dogs and rabbits, and drug supplies, 1978-79
 - 4 Animal records, Lee Bassett, R. Pawluck, R. Hopkins, 1/78-1/79
 - 5 Animal record, E. Hernandez, dogs, 1978
 - Animal records, rats, Lee Bassett, G. Valdes and medical students, 1/78-1/79

7 Annual reports, Orthopaedic Research labs, 1962-70 8 Annual reports, Orthopaedic Research labs, 1970-1981 9 A study of autologous cancellous bone particles in long bone discontinuity defects, 1983 Bargren draft, 1972 10 11 Surface electrical potentials in hydrated cortical bone, w/ Bargren, Pawluck, Final draft, rejected by *Journal Biomedical* (1 of 2) 57 1 Surface electrical potentials in hydrated cortical bone, w/ Bargren, Pawluck, Final draft, rejected by *Journal Biomedical* (2 of 2) Bargren paper, correspondence, notes, drafts & final, 1973-75 2 3 Biosteogen patient data, Oct. 1978 Instructions and rules for operation of the Presbyterian Hospital Bone 4 Bank, 1957 5 Orthopedic Research Society, Calcium abstract, notes, graphs and reprints, Bassett/HRC, 1986-1989 6 Correspondence, notes, coil transfer, 1980 7 Data summary on catatonic and anionic exchange resins, n.d 8 Data sheets for osteoporosis, Group M.A.S. and G.V., 1978 9 Data sheets, tissue culture, Group H.C., A.B. and M.S., 1978 List of units and data sheets, 1979-80 10 Ito Neural Data, 1980 11 12 Raw data for Osteo paper, Journal of Bone and Joint Surgery (JBJS), 1980 13 I.A.C. raw data for paper and queries, 1982 58 1 Electrobiology, equipment order firm, 1978-79 2 E.M. study on skin defects, O.R. 262-264, 65 Hz 1.47 K res., 73 3 Experimental data and photographs, c. 1976 4 Femoral slot, raw data, n.d., c. 1970s 5 Femoral slots, FS-20 to FS-75, 1978 6 Femoral slot, statistical analysis, 1978 7 Materials for ms – not included – for future consideration, misc. ms notes and femur data, n.d. 8 Fibular graft in canine, Rudner, 1976; and fibial osteotomy in rats, Hisencamp, 1977 9 Dr. Ara Kentenjian, Effects of varying concentrations of oxygen up on collagen biosynthesis in vitro, n.d. c. 1967 Misc. lab notes and research data, n.d., c. 1970s-80s 10 11 Mice – Lab (mice orders), 1978-79 12 Laboratory equipment, 1979 **59** 1 Lab notebook, 1991 Muller, Schenk & Willenegger, "Experimentelle Untersuchungen uber die 2 Entstehung reaktiver Pseudarthrosen am Hunderadius", 1978-80 3 Orthopedic surgery property inventory, 1978-87 Osteochondritis Dissecans, 1986-1993 4

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	7 Sodium ethydronate in a post-surgical osteoporosis, correspondence protocol, 1969-70		
	8 Osteoporosis S and L series, 1977 and P&Z 100 series, 1978		
	9 Osteoporosis Z series and P series, including photos, 1977		
	Osteoporosis rabbit protocol, 1978-79		
	Osteoporosis, students/Rosenberg, 1978		
	12		
60 1 Protocols of various programs, 1974		Protocols of various programs, 1974	
	2	Experimental protocol, 1974	
	3	EBI Protocol rat data, c. 1976	
4 Protocols and notes, TAPC 1976 and TASC 1977		,	
,		TASC survey run, data sheets and x-rays, 1976	
	6	Actives and controls, TASC Procedure #1, 1976	
	7	Active and controls, including x-rays, Procedure #2, TASC, 1977	
	8	TASC current animals, including x rays, 1977	
	9	Takagishi, fracture healing paper and data, unpublished, n.d. c. 1984	
	10	Notes and reprints, tissue culture and other topics, Chokshi, 1972-79	
	11	Vibrating probe company catalog, 1981-82	

Sub-series 7.2 Pulsed Electromagnetic Fields (PEMF), 1971-1982

Cancerous tumors in mice

	12	Research notebook, experimental study of effects of electromagnetic fields on tumor growth in Balb C mice, 1973
	13	Research notebook, 1976
	14	Research book, 1978
	15	Tumors in mice record book, 1979
61	1	Mouse tumor photos, n.d.
	2	Mouse tumor research materials, photos and offprints, 1971
	3-4	Correspondence, 1971-1981
	5	Misc mouse tumor, illustration, data, photo, 1973-74
	6	Partial summary of studies investigating the effect of EMF on sarcoma and research notes, 1973-76
	7-8	Effect if Meth A sarcoma in Balb C mice, data sheets, n.d. 1970s,
	9	Tumors and mice reports and data, 1973-79
	10	Effect of electromagnetic fields (EMF) on Meth A sarcoma in Balb C mice, summary, 1974-77
	11	Effect of EMF on Meth A sarcoma in Balb C mice, rough data, 1974-77
	12	Cancer paper, 1 st draft, 7/8/1974
	13	Preliminary criteria for mouse EM, research data and summary, 2-

		4/1976
	14	Data sheets for cancer (Balb C mice) group, 1978
	15	Effect of EMF on Meth A sarcoma in doto (?) mice, rough data, 1978-79
	16	PEMF effect on Meth A sarcoma in bc mice, final statistical analysis, 1978-79
	17	PEMFs effect on Meth a sarcoma in balb c mice, 1979
	18	PEMF effect on Meth A sarcoma in Balb C mice, instructions and data sheets, 1980
	19	Tumor study, Swiss Webster mice, 1981
62	1	Chokshi PEMF specs, DNA, 1976-79
	2-3	PEMF effect on avian chondrocytes in vitro, 1977
	4	PEMF effects on avian chondrocytes in vitro, Sterna Chokshi, 1978
	5	PEMF effect on chondrocytes in vitro, autoradiographic analysis, 1979
	6	Effect of PEMF on avian chondrocyte cultures (confluent), Chokshi, egg embryogenesis, 1978-79
	7	Effect of PEMF on avian chondrocyte cultures (confluent), Chokshi, research articles and notes, 1978-79
	8	Effect on chondrocytes in vitro, audioradiographic analysis, 1979
	9	Effect of PEMF on avian chondrocyte cultures (nonconfluent), Chokshi, 1979
	10	PEMF effect on confluent chondrocyte cultures (Mod. Dziak and Brand), 1979
	11	PEMF effect on confluent chondrocyte cultures, data sheets and graphs, (Mod. Dziak and Brand), 1979
	12	EMF effect on avian embryogenesis in vivo, 1978-79
63	1	PEMF effects on avian fibroblasts in vitro, Chokshi 1979
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	3	Chick embryonic lianbare (?) rudiments, protocols and data, 1979
	4	Chokshi, In and Out logs, experiment data, 1979
	5	PEMFs effect on avian rudiments in vitro, H. Chokshi, 1978-79
	6	PEMF effect on avascular necrosis in the rabbit, Halpern, Rinsky, et al, 1978-79
	7	PEMF, Bacteria, 1978
	8	Regulation of cellular calcium by inductively coupled pulsing electromagnetic fields, Bassett and Chokshi, 1978
	9	PEMF effect on canine wound healing, Sutcliffe, 1979-80
	10	PEMF effect on induced disuse osteoporosis in SD rats final statistical analysis, Omega, 1977-79
	11	PEMF effect on disuse osteoporosis model in SD rats, statistical analysis of all studies, 1978-79
	12	PEME effect on disuse osteoporosis Omega series, Valdes, 1979

PEMF effect on disuse osteoporosis Omega series, Valdes, 1979

14 PEMF treatment of loosened endoprostheses of the hip and knee, 1981 Ken Hess, fractures and PEMFS grafts data Fracture healing series, n.d. 15 16 29623, 35 days, 1979-80 17 47113, 35 days, 1980-81 18 Beagle iliac crest graphs, 1980 Radial grafts, 32005, 22 days, 1980-81 19 20 Stimulation schedule, 1981 21 10190 KHD-24, 4/27/82-5/18/82 22 10796, KHD-25, 428/82 and 5/19/82 23 Dog 1982, KHD-26, 5/4/82 and 5/26/82 24 Dog 10752 KHD-27, 5/7/82 and 5/28/82 25 Dog 13229, KHD-28, 7/14/82 and 8/4/82 26 Dog 13630, KHD-29, 7/20/82 and 7/23/82 27 Dog 13631, KHD-30, 7/21/82 and 8/17/82 28 Dog 13629, KHD-31, 7/29/82 and 8/19/82 29 KHD-32, 9/22/82 30 KHD-33, 9/24/82 31 KHD-34, 10/26/82 33 Animal 14751, KHD-35, 11/1/82 33 Animal 14744, KHD-36, 11/3/82 34 Statistics, n.d., c. 1982 35 Misc fresh fracture correspondence and record transfers, Ken Hess, 1982 64 Hess, Fx (Fracture?) Rat Tension data, 1983-84 1 2 PEMF effect on Pseudo A in vivo, records/units, old data, 1978 3 PEMF effect on Pseud A (Boston strain) in vitro, 1978 4 PEMF effect on Pseudo A (Mangelore strain) in vitro, 1979 5 PEMF effect in Pseudomonas A. in vitro, Lucker Summer 1979 6 Radial nonunions group, E.H. A.B. R.P., 1979 Radial osteotomies 7 Radial osteotomy, raw data, n.d., c. 1970s Radial osteotomy, statistical analysis, 1974-76 8 9 Radial osteotomies, active 14 days, CKT #1, Coil #1, 1976 10 Radial osteotomies, active 14 days, CKT #1, Coil #1, Aug. 1976 11 Radial osteotomies, active 14 days CKT #2, Coil 2, 1976 Radial osteotomies, data sheets and ex-rays, 1976 12 13 Radial osteotomies, tube control, Oct. 1976 14 Radial osteotomies, pulse train channel 3, coil 3, 1976

PEMF effect on disuse osteoporosis in the rat, Cruess and Kan, McGill

University, 1979

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	15-16	Radial osteotomies, raw research data, 1976
65	1	PEMF effects on radial osteotomies in SD rats, P. Christell (Patient data), 1978-79
	2	PEMF effects on radial osteotomies in SD rats, P. Christell (research data), 1978-79
	3	Radial osteotomies, 5-15 short, 1979
	4	PEMF effect on Osteotomy in SD rats Valdes, 1979-1980
	5	PEMF effect on radial osteotomy statistical analysis, Valdes, 1979-1980
	6	Radial program (Grace), [rat osteotomy], months 5-8. 1979-1980
	7	PEMF Rat osteotomy study, data sheets and photos, 1979-80
	8	Radial Osteotomies, normal control, K. Takagishi data, 1980-81
	9	Radial osteotomies, active data, Scott Schildhaus, Sept. 1980-June 1981
	10	Radial osteotomies, control data, Scott Schildhaus, Sept. 1980- June 1981
	11	Hresko, the effect of soft tissue damage on the healing of rat radial osteotomies, 1981
		Rat Osteoporosis
	12	Rat slots, experiment data, Dr. Lee, 1976
	13	Slots and osteoporosis, with average total body weight lose, 7, 14, 28 day, Dr. Lee, n.d.
	14	Rat osteoporosis, data sheets and analysis, 1977
	15	Miscellaneous data sheets and analysis, rat osteoporosis, 1977
	16	Data sheets, rat osteoporosis, actives, 7 and 14 days, 1977
	17	Research materials, including photos, c. 1977
66	1	Effect of electromagnetic fields (EMF) on rudiment in vitro
		uridine/thymidine uptake, Sept Dec 1978
	2	EMF effect on rudiment in vivo, 1978-79
		Sciatic nerve regeneration
	3	Data sheets, Dr. Ito, 1978-80
	4	PEMF's effect on sciatic nerve regeneration in SD rats, J. Kort and Ito, 1979
	5	Notes and research notebook, Dr. Ito, 1981
		Effect of PEMF on seed germination, Rapid Radish Raiser, 1979
		Skin flaps, data and correspondence, 1983-87
	8	Skin PEMF, 1984

Skin lesion study

	9	Sutcliffe skin lesion study, 1981	
	10	Skin lesion study (KHH) Project #34, Feb. 1981	
	11	Dog 3653 Unit 896 Code 318 1981	
	12	Dog SYY8 Unit 5306 Coil 609, 1981	
	13	Dog 40063 Unit 6109 Coil 610 and 318, 1981	
	13	Dog 6396, Unit 5661 Coil 611, 1981	
	15	Project 34 Dog 045314 Coil 609, 1981	
	16		
		Project 34 Dog 028916 Coil 611, 1981	
	17	Misc data sheets, 1981	
67	1	PEMF effect on spinal cord regeneration, Fall 1979-1980	
	2	PEMF effect on Staph, e. coli, Meyer, 1979	
	3	PEMF and tissue culture, notes and reprints, 1979-82	
	4	Paper on pulsed magnetic fields, I.A.C., 1983-86 (2 ff)	
Sub-series 7.3 Uncategorized research data			
	_	Characteristics and a state of the state of	
	5	Strangeways research note book, n.d. c. 1960s	
	6	Notebook, Walker 256 Sarcoma rat, ESB circuits, 1972	
	7	Electrostatic and electromagnetic TCNR Nanda Roy notebook, 1973	
	8	Research notebook, EM ES TC GP, 1974-75	
68	1	Research tables, n.d.	
	2	Research data, all study batch A-H, n.d, c.1970s	
	3	Research data, all study of batch J, K, n.d.	
	4	Research data, batch B, 1974	
	5	Research data, batch C, 1973	
	6	Research data, batch D, 1973	
	7	Research data, batch E, 1973	
	8	Research data, batch F, control experiment, 1973	
	9	Research data, batch H, G, special control, 1973	
	10	Research data, batch J, 1974	
	11	Research data, batch K, 20 power modified, 1974	
	12	Research data, batch L, n.d. c. 1970s	
	13	Research data, batch M, killer CKT, 1974	
	14	Research data, batch M and N, 1973	
	15	Research data, batch P, n.d. c. 1970s	
	16	Research data, batch Q, 1974	
	17	Research data, batch R, n.d.	
	18	Research data, batch S and P, other related notes and offprints, 1974-78	
	19	Research data, batch S, 1974	
	20	Research data, batch T, 1974	
	21		
		Research data, batch U, repeat of batch T, 1974	
	22	Research data, unknown batch, 1976	

Series VIII: Patient Records

- 23 R. B., 1988
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- Portrait for "Conversations with C. Andrew L. Bassett, MD," *Orthopaedic Review*, December 1979
- Gossling photos, American Academy of Orthopaedic Surgeons (AAOS)
 Instructional course, 1981
- Bioessays extra figures, pulse traces simplified from larger figures, n.d.
- Electrobiology, Inc., photo and patient inquiry, 1985

Sub-series 9.2 Audiotapes

70 Bassett: Pulsed Electromagnetic Fields, Preliminary Copy, August 1986

Non-invasive Bone Repair Utilizing the Bi-Ostoegen System (EBI), n.d.

Reconstruction – Elbow and Non-Unions, Part 2, 1980

Paper No. 34 *Electromagnetic Treatment of Non-unions*, Bassett, Gaston, Sutcliffe, Mitchell

Paper No. 35 Inferior Capsule Shift for Involuntary Inferior and Multi-directional Instability of the Shoulder, Neer and Foster

Paper No. 36 Use of a hand-carved Silicone Rubber Spacer for Advanced Kienbock's Disease, Stark, Zemel, Ashworth Paper No. 37 Tendon Transfer Rather Than Arthrodesis, Goldner

Current and New Techniques, Papers 92-97, 1978

Paper 92 Non-operative treatment of Pseudoarthroses and Nonunions by Pulsing Electromagnetic Fields, Bassett, Pilla, Mitchell and Pawluck

Paper 93 Application of Free Vascularized Bone Grafts in the Reconstruction of Large Segmental Bone Defects Secondary to Tumor or Trauma, Weiland, Daniel, Taylor

Paper 94 Differential Bone Scanning in the Diagnosis of the Painful Total Joint, Richin, Harris, Kenmore

Paper 95 Early Diagnosis of Stress Fractures by Bone Scintography, Strait and Geslien

Interview – Dr. Andrew Bassett, Cable Network News, May 4, year unknown, subject unknown

WOR Radio, Dr. Andrew Bassett, Guest on "Patricia McCann Program", 4/2/1979

Management of Femur Fractures, Eric Hume, MD, EBI Medical Systems Inc., n.d.

Electrical Stimulation

Paper No. 134 Detection of Synovial Pseudarthrosis by 99m Technetium Methylene Diphosphonate Scintigraphy, Esterhal, Brighton, Alavi

Paper No. 135 *Clinical and Roentgenographic Evaluation of Non-Union of the Tibia*, Heppenstall and Muller

Paper No. 136 Treatment of Congenital Pseudarthrosis with Pulsing Electromagnetic Fields, Caulo and Kort

Paper No. 137 *Total Invasive technique of Electrical Stimulation* for Non-Union of Long Bones, Lunceford, Paterson and Kimbrough

Paper No. 138 Pulsing Electromagnetic Field Treatment for Un-United Fractures and Failed Joint Fusions, Bassett, Mitchell and Gaston

Symposium: Non Union: Bone Graft versus Electricity, 1980

Introduction: Pathophysiology and Diagnosis of Non-Union (Brighton)

Bone Graft Surgery (Heppenstall)

Electrical Stimulation as an Alternate to Bone Graft Surgery

Direct Current (Brighton)

Electromagnetic Stimulation (Bassett)

Discussion

Sub-series 9.3 VHS tapes

EBI Avascular Necrosis Treatment System, The Today Show, July 24, 1985

BY THE YEAR 2000, "Electricity: A Current Dilemma", 11/23/1990

BEMS Bioeletromagnetics Society, 13th Annual Meeting, Little America Hotel and Towers, Salt Lake City, Utah, 6/23-27/1991