

[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)

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 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 Bassett'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); Electrobiological, 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 Bassett; 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 osteoporosis, 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: Because the records include Protected Health Information (PHI) as defined by the US Health Insurance Portability and Accountability Act (HIPAA), access is allowed only under the terms of Archives and Special Collections' [Access Policy to Records Containing Protected 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.
Electrobiolology 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

<u>Box</u>	<u>Fo.</u>	<u>Contents</u>
1	1	Correspondence, A, 1991-1993
	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 BRAGS Council, incl Charles Polk book chapter award submission, 1993
 5-6 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
 2 EBI Misc. correspondence, 1990-1994
 3 John Moore correspondence, 1994
 4-6 Jim Norris, EBI, 1990-1993
 7-8 Jim Norris, EBI, 1990-1993
 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 (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
10 Correspondence, H, 1981-1994
- 9** 1-2 M. H. M. Harrison, 1978-1987
3 Correspondence, I, 1991-1992
4 Intelectron, 1974
5-6 International Symposium on Wolff's Law, Berlin, April 4-6, 1990
7 Hiromoto Ito, 1987-1992
8 Correspondence, J, 1987-1993
9 Z.F.G. Jaworski, M.D., 1987-1994
10 Correspondence, K, 1987-1992
11 Correspondence, L, 1976-1994
- 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 *Journal of American Medical Association (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, 1980
7 Manuscripts reviewed for journals, 1989

- 12** 1 Manuscripts reviewed for journals, 1990
2 Manuscripts reviewed for journals, 1991
3-4 Manuscripts reviewed for journals, 1992
5 *Journal of Cellular Biochemistry*. Dr. Gary S.Stein, 1992
6 Manuscripts reviewed for journals, 1993
7 Therapeutic uses of electric and magnetic fields in orthopaedics,
1993
- 13** 1 Manuscripts reviewed for journals, 1994
2 R. Bruce Martin, 1978
3 Maglev/Allen, 1990-1993
4 William Bradley Mercier, photographs and slides, c. 1987
5 Kenneth McLeod, 1991
6 Bruce McLeod, 1992
7 *Microwave News*, issues and correspondence, 1984-1990
8 Granger Morgan., 1991-1992
9-11 Damijan Miklavcic, correspondence and reprints, 1991-1994
12 Correspondence, N, 1991-1994
13 National Academy of Sciences, Issues in Science and Technology, 1990
- 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 John Osmundson, *NY Times*, 1960-1986
12 Osteoporosis articles and correspondence, 1979-1983
13 Correspondence, P, 1991-1993
- 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 Electrobiolgy 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
 - 13 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**
- 1 Union of Concerned Scientists, 1992
 - 2 Correspondence, V, 1991-1993
 - 3 Correspondence, W, 1992-1994
 - 4 Correspondence X, Y, Z, 1987-1994

Series II. Correspondence and subject files, 1959-1992

- 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
 - 2 Govert L. Bassett, Osteodyne, correspondence and designs, 1987-1990
 - 3 L.S. Bassett and G.L. Bassett, Osteodyne, 1989

- 4 Biocodes, Inc., correspondence, reprints, articles, 1964-1990
- 5 Bioelectron, Memo to file, 1988
- 6-7 Bioelectric Research Foundation, P&S, Jewel and Lew Garlick, 1974-77
- 8 Bioelectric Research Center funding, 1988
- 9 Bioelectromagnetics Society, 8th Meeting, 1986
- 10 Richard Brentall, 1987
- 11 CCI, competing technologies, electromagnetic fields, 1984-88

- 20** 1 Ian Cook, 1975-1981
- 2-4 Ian Cook manuscript, April-July 1988
- 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 Electromagnetic Fields (PEMFs), w/ Ian Cook, 1988
- 4 Dosimetry Instruments, 1988-89
- 5 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
- 10-11 EBI Chris Weatherly, 1981-82
- 12 EBI correspondence, mixed subject, 1981-1990
- 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
- 7 Misc., 1970-79
- 8 Misc., 1980-89
- 9 Robert O. Becker, 1961-1969
- 10 Robert O. Becker, 1971-1975
- 11 DeMent, Norman, Allan, 1971

- 23** 1-2 DeMent, Norman, Allan, 1972
- 3 DeMent. Norman, Allan, 1973-79
- 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
- 7 Correspondence Committee, Edwards, 1970-73
- 8 Methyl Methacrylate Advisory Group, minutes, correspondence, etc., 1970-72

- 25** 1 Ad Hoc Committee on Medical Devices, literature, 1970-1973
- 2 Ad Hoc Committee on Medical Devices, 1970-71
- 3 Ad Hoc Committee on Medical Devices, agenda and minutes, Nov-Dec 1970
- 4 Task force on orthopaedic devices, 1971
- 5 Medical devices, 1971-72
- 6 Ad Hoc Committee on Medical Devices, Agenda and minutes, 1971
- 7-8 Medical Devices Advisory Committee, Bassett (chair), 1971-72 [1969-72]

- 26** 1 Medical Device Advisory Committee Meeting, 6/13/72 [1972-77]
- 2 Medical Device Advisory Committee Meeting, 10/16/72
- 3 Electrobiology, Inc/FDA correspondence, 1977
- 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 Gordon Research conferences, 1963
 - 2 Draft, letter to VP elect Gore, n.d., c. 1992
 - 3 L.R. Hefter, 1988-89
 - 4-5 IBM Visual Display Terminals (VDT) safety, 1984-89
 - 6 Internal Metal Fixation, 1982-84
 - 7-8 Manuscript, Issues in Science and Technology National Academy of Sciences Working papers, 8/89 (1-2 of 4)
- 28**
- 1-2 Manuscript, Issues in Science and Technology National Academy of Sciences Working papers, 8/89 (3 and 4 of 4)
 - 3 Hiromoto Ito, 1981-1991
 - 4 Jahn, Theodore, 1965-74
- Johnson & Johnson
- 5 Johnson and Johnson, Cambridge Consultants Ltd, 1971-72
 - 6 ESB, Inc. Research Grant, 1971-72
 - 7 Project proposal (fracture), 1971-73
 - 8 Consultancy, 1969-72
 - 9 Correspondence, general, 1970-74
 - 10 Columbia University Orthopedic Research Lab "Debacle," cancellation of funding, 1973-76, 1980 (1/2)
- 29**
- 1 Columbia University Orthopedic Research Lab "Debacle," cancellation of funding, 1973-76, 1980 (2/2)
 - 2 Kirlian research, 1978-79
 - 3 Lance, Eugene M., correspondence, 1972-74
 - 4 Helen Lee, National Institute of Health, August-Sept. 1986
 - 5 Leg lengthening, 1973-1980
 - 6 Leg lengthening, Columbia, individual records, c. 1966-71
 - 7 Special correspondence ("Lunatics"), 1978-89
 - 8 Special correspondence, unexplained electromagnetic phenomenon (in "Lunatics" file), 1980-82
 - 9 Manuscripts submitted, hydrated critical bone, 1973
 - 10-11 Manuscript review, Calcified tissue research, 1965-70
 - 12 Magnetech, 1988-89
 - 13 Magnetic fields and collagen, notes and correspondence, 1963-64
 - 14 Magnetic and electric fields, pulsed magnetic field therapy, 1982-89
- 30**
- 1 Mercer Musatti de Bastiani, 1984-1990
 - 2 Metastatic tumors of bone, 1975-78
 - 3 Denis Moran manuscript, n.d.
 - 4 Clinical orthopedics, Musso, 1985

- 5 National Air and Space Administration (NASA), Manned space flight, electromagnetic field, modification of bone loss during weightlessness, 1978
- 6-7 NASA Ames, Dan Young, weightlessness and primates, 1978-79
- 8 Lee Bassett Osteoporosis, NASA Study, 1979
- National Research Council
- 9-10 Committee on the Skeletal System, 1967-68
- 11 Ad Hoc Committee on Surgical Devices, 1964-65
- 12 Medical Devices Safety Act of 1967 [1967-74]
- 31** 1-3 Committee on Surgical Devices, 1967-68
- 4 Committee on Surgical Devices, 1968-71
- 5-6 Committee on Surgical Devices, 1968-72
- 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
- 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
 - 11 Equipment grant for orthopaedic research laboratories to develop electron micrographic facilities, 1963-1964
 - 12 Bioelectric phenomena controlling bone growth, 1963-66
 - 13 United States Public Health Service (USPHS) career grant, osteogenesis, 1964-65
 - 14 Bioelectric phenomena controlling bone growth, 1965-80
 - 15 Final report, effects of electric currents in osteogenesis, 1965
 - 16 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
 - 8 National Institute of Health (NIH) grant proposals, Neural grant budget, 1974
 - 9 NIH grant proposals, bone growth, 1974
 - 10 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
 - 15 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
- 11 Effects of pulsed electromagnetic fields on fresh fracture repair, 1983-85
- 12 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.
- 16 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
- 21 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
- 3 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
- 10 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
- 13 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
 - 16 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
 - 21 New York Academy of Sciences, Lecture and conference paper, 1973
 - 22 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
 - 24 American Institute of Chemical Engineers (AIChE) Symposium Bioelectric Phenomena, Dec. 1974
 - 25 Research Society of America, Sigma Award (rec'd), 1974
 - 26 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
- 40**
- 1 Electrical Phenomena in bones, Frontiers of Science, University of Utah, 1976
 - 2 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
 - 7 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
 - 10 Advances in Medicine, London, England, 7/23-28/1978
 - 11 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
 - 13 Orthopedic/Rehab Conference, Kingsbrook Jewish Medical Center. 12/15/78
 - 14 SICOT, Kyoto, Japan, 1978
 - 15 Oral Biology, Dental school, 1/4/79
 - 16 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
- 41** 1 International Kirlian Research Associate (IKRA), 6/8-10/1979
- 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
- 11 Columbia University School of Journalism, 2/19/1980
- 12 University of Pennsylvania, New Bolton Center, Kennett Square, PA,
2/28/80
- 13 Royal Society of Medicine, London, England, 4/1/1980
- 14 2nd International Symposium on Tissue Culture in Medical Research,
Cardiff, Wales, 4/1-3/1980
- 15 Symposium, Verona, Italy, 4/25/1980
- 16 Der Orthopadischen Klinik und Poliklinik der Universität Heidelberg,
Germany, 4/28/1980
- 17 ABC Travelling Fellows, New York, NY, 5/13/1980
- 18 Symposium on electrical stimulation of non-union, A. Einstein College of
Medicine, 6/8/1980
- 19 XIII Congreso Nacional Sociedad Española Orth. Traumatologia
(SECOT), 8/1980
- 20 Cornell University, Ithaca, NY, 9/10/80
- 21 The Hip Society Summer Meeting, New York, NY, 9/12/80
- 22 Chinese delegation, Biomedical Engineering, Columbia University
Orthopedic Research Labs, 9/22/1980
- 23 Johns Hopkins Children's Hospital, Baltimore, Grand Rounds, 12/6/1980
- 24 NYU Dental Center, Institute for Dental Research, Biological Effects of
PEMFs, 1980
- 25 Nippon Medical School, 1980
- 26 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 Internationale de Traumatologia Mapfre, Madrid, 11/24-
26/1983
12 Boston Orthopedic Club, lecture, 2/27/1984
13 Gordon Research Conference, Bioengineering and Research Science, 8/6-
10/1984
14 NY State Society of Orthopaedic Surgeons, 5/9-13/1984
15 American Paralysis Association, International Symposium on Central
Nervous System, 5/20-23/1984
16 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
18 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
20 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
22 AOA Coronado, CA, Transactions, *Journal of Bone and Joint Surgery*,
Fall 1985
- 43 1 BRAGS, 5th Annual Meeting, Boston, MA, 10/13-16/1985
2 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
5 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

- 9 13th Congress Latin American Society of Orthopaedics and Traumatology (SLAOT), 1986
- 10 American Academy of Orthopaedic Surgeons and Orthopaedic Research Society Annual Meeting, 1/19-22/1987
- 11 Lecture, U. of Minnesota, Roby Thompson, 3/19-21/1987
- 12 Seminar, E.I. DuPont de Nemours and Company, 4/22/1987
- 13 P&S Alumni Meeting, 9th Annual Dean's Day Symposium Certificate, 5/7-9/1987
- 14 Electrobiologia, Inc., National Sales Meeting, Parsippany, NJ, 6/6/1987
- 15 BEMS, 9th Annual Meeting, Portland, OR, 6/22-25/87
- 16 BRAGS, 7th Annual Meeting, Toronto, CA, 10/11-14/1987
- 17 Lecture, IEEE Rockefeller University, 12/9/1987
- 18 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
- 3 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
- 10 American Society of Bone and Mineral Research, Atlanta, 1990
- 11 BRAGS, 10th Annual Meeting, Philadelphia, 1990 (1 of 3)
- 45** 1-2 BRAGS, 10th Annual Meeting, Philadelphia, 1990 (2 and 3 of 3)
- 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
- 10 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

- 6 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
- 7 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)

- 49** 1-4 C. S., 1963-1985 (5-8 of 8)
- 5-6 M.S.D., 1983-1992 (1-2 of 5)

- 50** 1-3 M. S. D., 1983-1992 (3-5 of 5)
- 4-6 P.T., 1986-89
- 7 Legal, misc, 1985-1990
- 8-9 R.Y., 1986-1990 (1-2 of 4)

- 51** 1-2 R.Y, 1986-1990 (3-4 of 4)
- 3-6 Motorola-Reynard v. NEC America, 1993-1994 (1-4 of 5)

- 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
 - 5-6 Loose, 1960-69
 - 7-8 Loose, no index, 1970-79
- 54** 1 Reprints, with partial index, various topics, 1979-1985
- 2-3 Loose, 1980-89
 - 4 Loose, 1990-1994
 - 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
- 2 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

- 56** 1 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
 - 6 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
10 Bargren draft, 1972
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)
2 Bargren paper, correspondence, notes, drafts & final, 1973-75
3 Biosteogen patient data, Oct. 1978
4 Instructions and rules for operation of the Presbyterian Hospital Bone 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
10 List of units and data sheets, 1979-80
11 Ito Neural Data, 1980
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 Electrobiological, 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
10 Misc. lab notes and research data, n.d., c. 1970s-80s
11 Mice – Lab (mice orders), 1978-79
12 Laboratory equipment, 1979
- 59** 1 Lab notebook, 1991
2 Muller, Schenk & Willenegger, “Experimentelle Untersuchungen uber die Entstehung reaktiver Pseudarthrosen am Hunderadius”, 1978-80
3 Orthopedic surgery property inventory, 1978-87
4 Osteochondritis Dissecans, 1986-1993

- 5-6 Osteodyne, 1988-89
 - 7 Sodium ethydrionate in a post-surgical osteoporosis, correspondence and 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
 - 10 Osteoporosis rabbit protocol, 1978-79
 - 11 Osteoporosis, students/Rosenberg, 1978
 - 12 Letter to the editor, *Osteoporosis International*, 1994
- 60**
- 1 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
 - 5 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, 1st 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
 - 2 PEMF effects on avian fibroblasts in vitro, data, Chokshi 1979
 - 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 PEMF effect on disuse osteoporosis Omega series, Valdes, 1979

- 13 PEMF effect on disuse osteoporosis in the rat, Cruess and Kan, McGill University, 1979
- 14 PEMF treatment of loosened endoprostheses of the hip and knee, 1981

Ken Hess, fractures and PEMFS grafts data

- 15 Fracture healing series, n.d.
- 16 29623, 35 days, 1979-80
- 17 47113, 35 days, 1980-81
- 18 Beagle iliac crest graphs, 1980
- 19 Radial grafts, 32005, 22 days, 1980-81
- 20 Stimulation schedule, 1981
- 21 10190 KHD-24, 4/27/82-5/18/82
- 22 10796, KHD-25, 4/28/82 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** 1 Hess, Fx (Fracture?) Rat Tension data, 1983-84
- 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
- 8 Radial osteotomy, statistical analysis, 1974-76
- 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
- 12 Radial osteotomies, data sheets and ex-rays, 1976
- 13 Radial osteotomies, tube control, Oct. 1976
- 14 Radial osteotomies, pulse train channel 3, coil 3, 1976

- 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
- 6 Effect of PEMF on seed germination, Rapid Radish Raiser, 1979
- 7 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
 - 14 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

- 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
 - 24 P. D., 1971-1984
 - 25 J. G., 1971-1981
 - 26 M.H., 1968-77
 - 27 H.K., 1966-71
 - 28 D.M., 1969-72
-
- 69 1 W.P., 1961-63
 - 2 J.Q., 1970-76
 - 3 J.R., 1978-81
 - 4 K.R., 1971-74
 - 5 A.S., 1973-74
 - 6 M.S., 1980-88

Series IX: Audio-Visual Materials, 1978-1991

Sub-series 9.1 Photographs, 1978-1985

- 7 Equipment, n.d.
- 8 Mixed prints, equipment and x-rays, 1978-1986
- 9 Equipment on patient, 8x10, n.d.
- 10 Old PEMF equipment, n.d.
- 11 Portrait for "Conversations with C. Andrew L. Bassett, MD," *Orthopaedic Review*, December 1979
- 12 Gossling photos, American Academy of Orthopaedic Surgeons (AAOS) Instructional course, 1981
- 13 Bioessays extra figures, pulse traces simplified from larger figures, n.d.
- 14 Electrobiography, 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-Osteogen 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 Non-unions 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 Scintigraphy*, 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