Celebrating the Past, Present, and Future: 
The Department of Rehabilitation Medicine Turns 50

Much has changed since 1957, the year that UW School of medicine Dean George Aagaard appointed Justus F. Lehmann to be the first chair of the Department of Rehabilitation Medicine. We celebrated the achievements of this remarkable department – and its 50 productive, prestigious years – on June 1-2, 2007.

Our History

The First Decade (1957–1967)

The year was 1957. The destination was the University of Washington in Seattle. The car was filled by Justus and Mary Lehmann (pregnant with their son, Frank), daughters Hertha and Elizabeth, their dogs, and the belongings they carried for the winter trip from Columbus, Ohio. After completing his training in Biophysics and Physical Medicine and Rehabilitation (PM&R) at the Mayo Clinic and serving 2 years as Associate Director of the PM&R department at Ohio State University, Dr. Lehmann was headed west to establish the first PM&R department between Vancouver, B.C. and Denver, Colorado.

The medical school in Seattle (established in 1946) was now under the leadership of Dean George Aagaard, who had become familiar with physical medicine and rehabilitation when he was at the University of Minnesota. In addition to Dean Aagaard’s knowledge of rehabilitation, there was also pressure from the Washington State Physical Therapy Association to create a physical therapy training program, and the sporadic epidemics of poliomyelitis created a need for rehabilitation services. The state PT association urged that the PT program be added to the Physical Education Department, but Dean Aagaard recruited Dr. Lehmann to develop a comprehensive program of research, education, and clinical care in medical rehabilitation, including physical therapy. The Washington State Department of Vocational Rehabilitation also supported initiation of the department, both philosophically and fiscally.

While the University Hospital was still under construction the department's initial offices were next to the morgue in the pathology space. The department was funded, in part, by a grant from the Sister Kenny Foundation. Initial clinical services provided consults and outpatient care at King County Hospital (now Harborview Medical Center), with the most disabled patients treated at Unit II on Queen Anne Hill. Dr. Lehmann was joined by Dr. John Redford and Dr. Walter Stolov as the first three physiatrists; and in 1963 Drs. Don Silverman, Katherine Tremain, and John Spiegler were the first PM&R residents to graduate.

George Brunner followed Dr. Lehmann from Ohio State to head both the clinical and the academic Divisions of Physical Therapy. JoAnn McMillan, who initially moved from Minnesota to a clinical position at King County Hospital, joined the
faculty in 1958. The first class of seven PT students began in the fall of that year. Students entered with a minimum of two years’ prerequisite coursework and the curriculum consisted of two 9-month years plus one summer of clinical education.

Dr. Lehmann quickly led efforts to add an occupational therapy educational program and recruited Shirley Bowing, OTR, from Green River Community College where she was the Director of the OT Assistant Program. Shirley became the Head of the OT Division and Gerry Shevlin was hired as the other faculty member. The program, which was similar in length and format to the PT program, was initiated in 1959. Many of the courses created for the PT program were now shared with the OT program (anatomy, physiology, and kinesiology). Shirley also initiated a new course series, Medical Sciences, for both student groups. This 2-quarter course involved guest faculty from departments throughout the medical school presenting lectures on topics of clinical importance to rehabilitation services.

Dr. Bill (Wilbert) Fordyce, the department’s first psychologist on the faculty, returned to Seattle from Minnesota just before the University Hospital opened in May, 1958. Ron Hartley joined the psychology staff soon thereafter, to be followed by Drs. Roy Fowler, Roberta Triechmann, and Pat Sands. Don Bonnington, a psychiatrist, joined the department for about a year; Evelyn Taylor was another psychologist on the faculty during the first few years.

The psychologists placed a heavy emphasis on behavioral techniques, especially after Bill Fordyce applied them successfully to a chronic pain patient.

Joseph Kunce, PhD, headed the vocational rehabilitation unit for about a year, beginning about 1961, and Densly Palmer followed.

Inpatient rehabilitation services were initiated at the Veteran’s Administration Medical Center in 1961 and at the US Public Health Service Hospital on Beacon Hill in 1965. Inpatient services at Harborview Medical Center and Children’s Orthopedic Hospital came later.

Research was an important part of the department from the beginning, led by Dr. Lehmann’s continuing research on biomechanics and physical modalities, especially diathermy. In 1963, the department was awarded the third National Rehabilitation Research and Training Center (RT-3) Grant established by the U.S. Department of Health Education & Welfare. This large grant supported research in a range of rehabilitation-related areas.

The Second Decade (1967-1977)

The second decade provided a period of departmental growth. After successful initiation of the PT and OT programs, Dr. Lehmann worked with Barney Simons, director of the department’s Prosthetics & Orthotics unit, to create a curriculum for P & O students with the assistance of federal funding. The educational program structure shared coursework with OT and PT students, and even medical residents. Again, the objective was to develop understanding among the students of the special skills and talents of each group and ways they could interact to enhance rehabilitation services for patients. In 1970 the name of the department was changed to the Department of Rehabilitation Medicine, a name that was more consistent with the multidisciplinary composition of the faculty and students.

Rural outreach followed the development of the WAMI program which
designated positions in the medical school class for students from Alaska, Montana, and Idaho. The Department of Rehabilitation Medicine also established rural clinics in Yakima and Wenatchee as well as sending medical students to Anchorage, Billings, Great Falls, Salem, Eugene, Boise, and Honolulu for rehabilitation clerkships. Dr. Stolov and Mrs. Rosemarian Berni secured federal training grants to support rural training in rehabilitation for medical students and for nurses who came to the UW campus for a “short course”.

In 1967, post-professional degree programs were initiated in both OT and PT for a Master of Science Degree. These programs were for registered therapists wishing to gain advanced competencies in research, teaching and administration. Residents in PM&R also routinely completed Master’s of Science degrees during their residency.

Although clinical Speech Language Pathology services were available at the University of Washington Hospital prior to the 1970s, the first speech-language pathologist appointed to the faculty was Rick Bollinger (who received his PhD from the Department of Speech and Hearing Sciences) joined Connie Stout, the Clinical Chief of Speech Pathology Services, in 1971.

Starting in the late 70’s and until the late 90’s, Federal training grants were an important source of departmental support for training rehabilitation professionals. Most of these were awarded by the Office for Special Education and Rehabilitation Services (OSERS) or from the Rehabilitation Services Administration (RSA). The department had long-standing training grants for OT, PT, P&O, and medical students, as well as physiatrists, and psychologists. At times these were simply for entry-level professional training, and at times they were more specialized; for example: for training at rural sites or to enhance the students’ experience with assistive technology.

Nationally, Dr. Lehmann’s leadership was recognized by receipt of the Gold Key award from the American Congress of Rehabilitation Medicine and election to the presidency of both the American Academy of Physical Medicine and Rehabilitation (AAPM&R) and the Association of Academic Physiatrists (AAP). Internationally, Dr. Lehmann traveled to Pakistan in 1970 and to Ecuador in 1974, as a rehabilitation consultant in those countries.

In the late 70’s, the department initiated an annual review course designed primarily to help prepare physicians to take the board examinations in PM&R. This continuing education course was taught primarily by departmental faculty.

**The Third Decade: (1977-1987)**

This was the last decade under Dr. Lehmann’s chairmanship, and the leadership of other faculty became recognized both locally and nationally. Nationally this included the presidency of the AAPM&R (Kraft, deLateur), the American Congress of Rehabilitation Medicine (Fordyce), the AAP (Kraft), the American Pain Society (Fordyce), the AANEM (Kraft, Stolov), and the Academy of Neurologic Communication Disorders & Sciences (Yorkston).

The publication of several books in this and subsequent decades also established their authors/editors as national academic leaders. These included:

- Fordyce, W. *Behavioral Methods in Chronic Pain and Illness*.
- Berni, R. and Fordyce, W. *Behavioral Modification and the Nursing Process*
- Clowers, M and Stolov, WC. *Handbook of Severe Disability*. 


Woollacott M, Shumway-Cook A. (Eds.): *The Development of Posture and Gait Across the Lifespan*

Shumway-Cook A, Woollacott M. *Motor Control: Translating Research into Clinical Practice*

Yorkston, K.M., Beukelman, D.R. and Bell, K.: *Clinical Management of Dysarthric Speakers*.


Robinson, L (Ed) *Trauma Rehabilitation*

Our faculty has also received numerous other awards. An incomplete sample of these includes the Krusen award (Lehmann, Kraft), and the Zeiter lecture of the AAPM&R (Lehmann, Kraft), the Distinguished Clinician award of the AAPM&R (Stolov), the Lifetime Achievement award of the American Association of Electrodiagnostic Medicine (Kraft, Stolov), the American Occupational Therapy Foundation Meritorious Service Award (Deitz), Roster of Fellows, American Occupational Therapy Association, (Deitz, Dudgeon, Engel-Knowles, Kanny), the APTA Baethke-Carlin Award for Excellence in Academic Teaching (Hertling), the APTA Mary McMillan Fellow (Shumway-Cook), the William Fields Caveness Award from the Brain Injury Association for Outstanding Research contributions (Dikmen), the Clinical Achievement Award, Academy of Neurologic Communication Disorders and Sciences, and Honors of the Association, American Speech-Language-Hearing Association (Yorkston), the AAP Outstanding Service Award, and the ACGME Parker J Palmer Courage to Teach Award (Massagli).

In the early 1980’s, there was a shift in national rehabilitation research funding policy. The broad-based large (>$1,000,000/year) research and training center grants, including our RT3, were discontinued and replaced by smaller injury specific Research and Training Center grants. The loss of this large amount of money required reduction in staff and some faculty. For a short time JoAnn McMillan served both as head of PT and as the departmental administrator and we lost people like Gerry Warren, who had played a major role in the department’s research.

Jennie Lucci retired as Head of the Division of Occupational Therapy in 1979, and Brenda Moore, PhD, OTR, was selected to lead the division. In 1982, Dr. Moore left and Elizabeth Kanny assumed the position as Head of the Division. Brenda Moore and Jean Deitz were the first allied health core faculty who had PhD’s, and it now is routine that OT and PT faculty hired in these divisions have PhD level research training.

Barney Simons also retired in 1981 as head of the Prosthetics and Orthotics program, to be replaced by Al Dralle.

In 1986, Dr. Lehmann stepped down as chair at age 65, which was policy at the time. Dr. Marjorie Anderson served as Acting Chair from 1986-1987 until Dr. Walter Stolov became chair in July, 1987.

**The Fourth Decade (1987-1997)**

As Dr. Stolov assumed the leadership of the department, diversification of our funding base was an important step. While Federal grants for training rehabilitation professionals were diminishing, he was able to obtain small operational budgets from the Dean’s office for the PT, OT, and P&O programs.

Research funding was also diversified. We were awarded an RTC grant from NIDRR in Traumatic Brain Injury and we led, or were participants, in 3 NIDRR-funded model system grants (TBI, spinal cord injury, and burn).

In 1990, the National Center for Medical Rehabilitation Research (NCMRR) was established in the National Institutes of Health (NIH), and in 1991, we were awarded one of their initial grants: a training grant for Rehabilitation Research training. In 1996, Dr. Mark Jensen led the successful application for a Program Project from NCMRR to study chronic pain in persons with disabilities. This added to individual NIH research grants that supported the research of Dr. Marjorie Anderson in movement disorders, Dr. Sureyya Dikmen in TBI, Dr. Mark Jensen in chronic pain, and Dr. David Patterson in burn rehabilitation and the use of virtual reality during painful clinical procedures. Funding from the Centers for Disease Control (CDC) also began in this period, with participation by Dr. Ken Jaffe in the Injury Prevention program and later for studies led by Drs. Kathleen Bell and Dawn Ehde. At the VA, Dr. Joe Cziernieki became the co-director of the VA Rehabilitation Research and Development Center (Prevention, Amputation and Prosthetic Engineering), one of six specialized VA research centers of excellence.

Dr. Kurt Johnson, head of the vocational division, has successfully obtained funding from several sources, especially to make assistive technology available to persons with disabilities. This is a long cry from the monotone “I want to go to the bathroom”, that repeatedly sounded from the primitive speech synthesizer that earlier resided in Dave Beukelman’s office.

Our faculty also participated nationally to determine research funding by serving on the Advisory Board of NCMRR (Deitz, Anderson, and Cardenas) and by serving on review panels of grants submitted to NIDRR and NIH.

In 1996 JoAnn McMillan stepped down as head of the Division of Physical Therapy, and Dr. Mark Guthrie was selected to replace her. Al Dralle left the P&O faculty in 1995 and was replaced in 1996 by John Ferguson.

The Fifth Decade (1997-2007)

Leadership has changed twice during the last decade, and new initiatives have been undertaken. Dr. Stolov stepped down as chair in 1999, and Dr. Anderson again served as acting chair until Dr. Larry Robinson assumed the chairmanship from July of 1999 to spring of 2006.

In 1999, the entry level programs in OT and PT both converted from bachelors to entry-level Master’s programs (MOT and MPT). These programs included seven quarters of coursework, two quarters of clinical fieldwork, and completion of a Master’s project. In 2001, the programs initiated the Annual Graduate Project Symposium.

In 2003, the physical therapy program followed the national trend and converted to an entry-level doctorate program (DPT). In the absence of additional funding from the university budget for this program, the physical therapy division has also moved to a self-sustaining status, in which the program is offered through the University of Washington extension program.
Tuition levels are established by the program and dollars come directly to the program, which then pays an indirect cost to the university.

In 2004, John Ferguson left to assume leadership in P&O at Brooke Army Medical Center in San Antonio, Texas. Ann Yamane has assumed leadership of the P&O program, which is preparing to move to the Master’s level.

The most recent development in academic programs has been the initiation of the PhD-granting program in Rehabilitation Sciences. The first cohort of seven students began in September, 2006. Dr. Deborah Kartin administratively leads the program, which is taught primarily by departmental faculty. This exciting development parallels the increased research activities of faculty from all of the disciplines represented in the department.

Research activities have continued to expand. One of four Regional Rehabilitation Research Networks was awarded to our department, with Dr. Marjorie Anderson as PI, in collaboration with the Imaging Center at UCLA. Multi-site research has become more common and the TBI model system, now led by Dr. Kathleen Bell, the SCI model system, now led by Dr. Charles Bombardier, and the UW Center on Outcomes Research in Rehabilitation, led by Dr. Dagmar Amtmann, all have collaborative multi-site studies. In 1998, NIDRR awarded a rehabilitation research and training center in multiple sclerosis to a group led by Dr. George Kraft, and Dr. Jodie Haselkorn was awarded a VA Multiple Sclerosis Center of Excellence in 2002. Since 2002, the Department of Rehabilitation Medicine has received the largest amount of NIH funding of any university-based Rehab Medicine or PM&R department in the country.

In 2001, Dr. Kenneth Jaffe was appointed Editor-in-Chief of the Archives of PM&R, the major journal in the field.

Clinically, the most dramatic change in the last decade has been the enhancement of our musculoskeletal program. Six physicians who specialize in musculoskeletal and sports medicine have been added to our faculty, including the well-established Puget Sound Sports and Spine group led by Dr. Stan Herring and based at Harborview Medical Center. The first fellow is just completing a musculoskeletal fellowship, and with the addition of three more faculty during the next year, our presence in the physical medicine part of PM&R has certainly been enhanced.

Over our entire 50 year history:

**Clinical care for those with disabilities:** Throughout the history of the department our long-term and short-term objectives have been to improve the care and quality of life of those with disabilities. This includes providing top quality clinical services at all of our clinical sites. Over the years the chiefs of services have included (current institutional names):

UW Medical Center: Justus Lehmann, George Kraft (acting), Walter Stolov, Larry Robinson, Diana Cardenas, Kathleen Bell

Electrodiagnosis: Robert Jebson, George Kraft

Harborview Medical Center: Barbara deLateur, Larry Robinson, Peter Esselmann

Electrodiagnosis: Larry Robinson
Children's Hospital and Medical Center: Neal Taylor, Morris Horning, Bruce Gans, Gary Okamoto, Kenneth Jaffe

Veteran's Affairs Puget Sound Health Care System:

Rehabilitation Medicine Service: Walter Stolov (Consults), Bruce Masok, Eugen Halar, Jodie Haselkorn (Acting), Arthur (Skip) Rodriguez, Joe Czerniecki

Spinal Cord Injury Service: Gene Halar (applied for the unit), Joel DeLisa, Margaret Hammond

Pacific Medical Center (USPHS Hospital): Walter Stolov

Overlake Medical Center: George Kraft, Ib Odderson

Seattle Medical and Rehabilitation Center: Kathleen Bell, Michael Chang

Intraoperative Monitoring Program: Walter Stolov, Jefferson Slimp

Training: Teaching students, residents and fellows the principles and best practice of the various aspects of rehabilitation has also been a primary ongoing goal of the department. We have had the good fortune of outstanding students, to start with, and they have worked hard and challenged us to help them develop the best skills possible. To date, we have trained, at a minimum, the following:

Total trainees to June, 2006:

Medical students: Over 5000
Clerkship and medical education directors: Walter Stolov, Ross Hays

PM&R residents: 277
Residency directors: Justus Lehmann, Margaret Hammond, Theresa Massagli

Prosthetist/Orthotists: 341
Program directors: Bernard Simon, Al Dralle, John Fergason, Ann Yamane

Occupational Therapists: 887
Program directors: Shirley Bowing, Jennie Lucci, Brenda Moore, Elizabeth Kanny

Physical Therapists: 1,133
Program directors: George Brunner, JoAnn McMillan, Mark Guthrie

Psychologists: Many

Postdoctoral Fellows (Clinical or Research):
Program directors: Dave Patterson (clinical psychology), Marge Anderson (research)

Rehabilitation Nurses

Administration: As the department has grown and become more complex, it has been important to have skilled administrators. Most recently these have included Marty Raichle (who learned on the job), Deborah Wilkerson, Marie

Kroll, Beverly Goddard, and Ann Reite. JoAnn McMillan also served as departmental administrator, as well as head of PT, for a short time during our budget crisis.

The future...

As of this writing, Dr. Peter Esselman is in negotiations to become the fourth chairman of the University of Washington, Department of Rehabilitation Medicine. The next fifty years will bring new leadership and exciting new opportunities.

Marjorie E. Anderson, PhD
Seattle, May 2007