

1. Record Nr.	UNINA9910961670303321
Titolo	Bridging disciplines in the brain, behavioral, and clinical sciences // Terry C. Pellmar and Leon Eisenberg, editors ; Committee on Building Bridges in the Brain, Behavioral, and Clinical Sciences, Division of Neuroscience and Behavioral Health, Institute of Medicine
Pubbl/distr/stampa	Washington, D.C., : National Academy Press, c2000
ISBN	0-309-18367-7 1-280-21004-4 9786610210046 0-309-56324-0
Edizione	[1st ed.]
Descrizione fisica	xiv, 130 p. : ill
Altri autori (Persone)	PellmarT. C (Terry C.) EisenbergLeon <1922-2009.>
Disciplina	612.8
Soggetti	Brain - Research - United States Psychology - Research - United States Social sciences - Research - United States Medicine - Research - United States Interdisciplinary research - United States
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Bridging Disciplines in the Brain, Behavioral, and Clinical Sciences -- Copyright -- Preface -- Acknowledgments -- REVIEWERS -- Contents -- Executive Summary -- CHARGE TO THE COMMITTEE -- THE POTENTIAL OF INTERDISCIPLINARY RESEARCH -- BARRIERS TO INTERDISCIPLINARY RESEARCH AND TRAINING -- PREDOCTORAL AND POSTDOCTORAL TRAINING PROGRAMS -- TRANSLATIONAL RESEARCH TRAINING -- CAREER-LONG TRAINING OPPORTUNITIES -- EVALUATION-HOW DO YOU KNOW WHICH PROGRAMS WORK TO ENCOURAGE INTERDISCIPLINARY EFFORTS? -- 1 introduction -- INTERDISCIPLINARY RESEARCH -- INTERDISCIPLINARY TRAINING -- TRANSLATIONAL RESEARCH -- INTERDISCIPLINARY RESEARCH IN THE BRAIN, BEHAVIORAL, AND CLINICAL SCIENCES -- COMMITTEE PROCESS -- SCOPE AND STRUCTURE OF THIS REPORT -- REFERENCES -- 2 The

Potential of Interdisciplinary Research to Solve Problems in the Brain, Behavioral, and Clinical Sciences -- NEUROSCIENCE: EVOLUTION OF A DISCIPLINE -- DISCIPLINARY WORK PROVIDES A FOUNDATION -- Human Genome Project -- Neuroanatomy of Ramon y Cajal -- TRANSLATIONAL RESEARCH: TO THE CLINIC AND BACK AGAIN -- Breakthrough in Sickle Cell Anemia -- THE STORY OF PATIENT HM -- INTERDISCIPLINARY RESEARCH: MAKING PROGRESS -- Cardiovascular Health and Behavior -- Schizophrenia -- INTERDISCIPLINARY RESEARCH: FUTURE DIRECTIONS -- Pain -- Injuries -- Obesity -- EFFECTIVE FUNDING INITIATIVES IN INTERDISCIPLINARY RESEARCH -- Alzheimer's Disease Centers -- PET CENTERS -- FINDINGS AND RECOMMENDATIONS -- REFERENCES -- 3 Barriers to Interdisciplinary Research and Training -- ATTITUDINAL BARRIERS -- COMMUNICATION BARRIERS -- Jargon -- Intellectual Turf -- Team Building -- Leadership -- Facilitating Interactions -- ACADEMIC AND PROFESSIONAL BARRIERS -- Academic Structures -- Publications and Professional Organizations -- FUNDING BARRIERS -- Federal Funding -- Peer Review -- CAREER BARRIERS -- Duration of Training.

Debt -- Job Opportunities -- Staying Current -- Midcareer Retraining -- Special Challenges for the Clinician-Scientist -- FINDINGS AND RECOMMENDATIONS -- REFERENCES -- 4 Interdisciplinary Training Programs -- UNDERGRADUATE PROGRAMS -- PREDCTORAL AND POSTDOCTORAL TRAINING -- Interdisciplinary Training Mechanisms for Predoctoral Students -- Interdisciplinary Training Mechanisms for Postdoctoral Fellows -- Funding Mechanisms for Predoctoral and Postdoctoral Fellows -- Investigator Awards -- Fellowships -- Institutional Awards -- Implementation of Programs -- Translational Research Training -- Training of Physician-Scientists -- Clinician-Scientists in Fields Other than Medicine -- Clinical Training for PhDs -- EARLY CAREER OPPORTUNITIES -- MIDCAREER EDUCATION -- Midcareer Investigator Awards -- Faculty Development Programs -- Workshops -- Multi-Institutional Programs -- NIH Centers -- NSF Centers -- Foundations -- INTERDISCIPLINARY TRAINING FOR UNDERREPRESENTED POPULATIONS -- Outreach to Undergraduates and High School Students -- Minority Faculty Development -- Minority Institutions -- Special Training Issues Concerning Women --

COLLABORATIONS AMONG FUNDING AGENCIES -- Collaboration within NIH: NIH Pain Research Consortium -- Collaboration Across Government Agencies -- The Human Brain Project Phase I Feasibility Studies -- NSF Partnerships -- Government-Foundation Collaborations -- Tobacco Use Research Centers -- NIH Interactions with Foundations -- Opportunities with Private Industry: GOALI -- FINDINGS AND RECOMMENDATIONS -- REFERENCES -- 5 The Future of Interdisciplinary Research and Training -- INNOVATIVE APPROACHES AND OPPORTUNITIES -- EVALUATION -- Identifying Interdisciplinary Programs -- Evaluating Success -- Career Paths -- Changes in Universities and Funding Agencies -- A VISION OF INTERDISCIPLINARY TRAINING -- FINDINGS AND RECOMMENDATION.

REFERENCES -- APPENDIX A Meeting and Workshop Agendas -- APPENDIX B Interviews and Consultations -- APPENDIX C Reviewed Training Programs -- APPENDIX D Select National Institutes of Health Mechanisms for Training and Research Support.

Sommario/riassunto

Interdisciplinary research is a cooperative effort by a team of investigators, each an expert in the use of different methods and concepts, who have joined in an organized program to attack a challenging problem. Each investigator is responsible for the research in their area of discipline that applies to the problem, but together the investigators are responsible for the final product. The need for

interdisciplinary training activities has been detailed over the last 25 years in both public and private reports. The history of science and technology has even shown the important advances that arose from interdisciplinary research, including plate tectonics which brought together geologists, oceanographers, paleomagnetists, seismologists, and geophysicists to advance the ability to forecast earthquakes and volcanic eruptions. In recognition of this, the need to train scientists who can address the highly complex problems that challenge us today and fully use new knowledge and technology, and the fact that cooperative efforts have proved difficult, the National Institute of Mental Health (NIMH), the National Institutes of Health (NIH) Office of Behavioral and Social Sciences Research (OBSSR), the National Institute on Nursing Research (NINR), and the National Institute on Aging (NIA) requested that an Institute of Medicine (IOM) Committee be created to complete several tasks including: examining the needs and strategies for interdisciplinary training in the brain, behavioral, social, and clinical sciences, defining necessary components of true interdisciplinary training in these areas, and reviewing current educational and training programs to identify elements of model programs that best facilitate interdisciplinary training. Bridging Disciplines in the Brain, Behavioral, and Clinical Sciences provides the conclusions and recommendations of this committee. Due to evaluations of the success of interdisciplinary training programs are scarce, the committee could not specify the "necessary components" or identify the elements that "best facilitate" interdisciplinary training. However, after reviewing existing programs and consulting with experts, the committee identified approaches likely to be successful in providing direction for interdisciplinary endeavors at various career stages. This report also includes interviews, training programs, and workshop agendas used.
