

CURRICULUM VITAE

E. Andrew Balas

OFFICE

Biomedical Research Innovation Laboratory
Augusta University
1120 15th Street
Augusta, GA 30912
Phone: 706-721-1104

GRADUATE STUDIES

University of Utah; Health Informatics Ph.D.

NIH Public Health Service Fellow

Eötvös University of Sciences, Applied Mathematics, M.S.

Semmelweis University (Budapest); M.D.

FIELDS OF CONCENTRATION

Strategic leadership and public health priorities in the expansion of biomedical research

Global competitiveness in production of new knowledge responsive to societal needs

The innovative research laboratory: practices and organizational culture of quality and productivity

HONORS AND HONORARIES

Demonstration of Leadership Alumni Award, University of Utah, Department of Biomedical Informatics, 2016

Charter Member of the Phi Kappa Phi Honor Society at Augusta University, 2012

Acta Universitatis Sapientiae, Social Analysis, Editorial Board member 2012

Honorary Second Lieutenant, United States Army, 2012

Bosnian-Herzegovinian American Academy of Arts and Sciences, Elected Honorary Member, 2009

Honorary citizen of the town of Gyergyóremete, 2007

Honorary Member of the Phi Eta Sigma Honor Society 2007

For Outstanding Performance. Recognition by the Commander of Navy Medicine East, 2007

Honorary Professor, Sapientia - Hungarian University of Transylvania, 2007

Elected Member of the Honor Society of Phi Kappa Phi
2006

Elected member of the European Academy of Sciences and Arts, 2004

Statement of recognition in the United States Congressional
Records, November 3, 1999

Elected Fellow of the American College of Medical Informatics
1998.

Health Policy Fellow, Institute of Medicine, National Academy of Sciences 1997-
98;

Helen Yerger/L. Vann Seawell Best Article Award, Journal of
Healthcare Financial Management 1997;

Visiting Scholar, Uppsala University, Uppsala, Sweden, 1986.

National Kidney Foundation Research Fellow, European Dialysis
and Transplant Registry, London, United Kingdom 1984;

For Serving the Nation Award, 1985.

Outstanding Work in Health Services Award

Graduated Summa cum Laude and ranked first in graduating medical school class.

**BOARD OF
DIRECTORS/
ADVISORS**

Elected Vice President (2017 -)
Friends of the National Library of Medicine, Washington, DC

Chair, Board of Trustees (2009-)
Forerunner Federation – Foundation for Minority Success, Norfolk, VA

Elected President (2017)
Southern Association of Allied Health Deans in Academic Health Centers

Board of Directors (2007 -)
Friends of the National Library of Medicine, Washington, DC

Board of Directors (2014-2017)
Augusta University Health System, Augusta GA

Chair, Board of Directors (2014-2017)
Augusta University Health Professions Associates, Inc. Augusta, GA

Elected treasurer (2014-2017)
Southern Association of Allied Health Deans in Academic Health Centers

Chair, Board of Trustees (2009 -)
Forerunner Federation, Norfolk, VA

Advisory Board (2003 - 2016)
Zynx Inc., Cedars Sinai Medical Center, Los Angeles, CA

**ADMINISTRATIVE
AND ACADEMIC
POSITIONS**

Professor with Tenure
Lead, Biomedical Research Innovation Laboratory
Institute of Public and Preventive Health
Augusta University 2011-

Dean
College of Allied Health Sciences
Augusta University (Formerly Georgia Regents University)
Augusta, Georgia
2011- 2017

Founding Director, Institute of Public and Preventive Health
Georgia Regents University, Augusta, Georgia
2011-2013

Dean, College of Health Sciences, Old Dominion University, 2004-2010

Dean, School of Public Health, Saint Louis University,
2002-2004

Professor of Health Policy with tenure, Saint Louis University, 2002-2004

Director, European Union Center, University of Missouri, 1999-2002

Director, Center for Health Care Quality, University of Missouri, 1998-2002

Weil Distinguished Professor of Health Policy with tenure, University of Missouri, 1999-2002

Senior Fellow, National Center for Managed Health Care Administration, 1992-1999

United States Senate, Labor Subcommittee on Public Health and Safety;
American Political Science Association Fellow, 1998

Associate Professor of Health Services Management, University of Missouri, 1997-1999

Research Associate, Medical Informatics Group,
University of Missouri, 1991-1999

Assistant Professor of Health Services Management, University of Missouri, 1991-1997

Public Health Research Fellow,
University of Utah and LDS Hospital, 1989- 1991

Vice President, Institute of Medical Informatics and Computing, Budapest, 1984-88.

Research Fellow, European Dialysis and Transplant Registry, London, U.K. 1984.

Associate Director, Computing Institute, Semmelweis University, 1981-1984

Research Assistant Professor, Semmelweis University, 1978-84.

Physician consultant, National Institute of Internal Medicine, Budapest, 1977-80.

Army Physician, Institute of Military Technology, Budapest, 1978-79.

**PROFESSIONAL
AFFILIATIONS**

Friends of the NIH National Library of Medicine
European Academy of Arts and Sciences
American Medical Informatics Association
American College of Medical Informatics
Association of the United States Army
American Association of University Professors (AAUP)

**SERVICE TO
ACADEMIC AND
GOVERNMENT
ORGANIZATIONS**

Conference and Workshop Chair, “Best practices of biomedical research” educational conference and webinar series of the NIH, National Library of Medicine, Friends of the National Library of Medicine, Bethesda Continuously since 2009-

Conference Chair, “Consequential Clinical Research: Accelerating Continuous Improvement” Conference, National Institutes of Health, National Library of Medicine, Friends of the NIH National Library of Medicine, Research!America, Bethesda 2017

Conference Chair, “Best Practices of Biomedical Research: Improving Reproducibility and Transparency of Preclinical Research.” Conference, National Institutes of Health, NIH National Library of Medicine, Friends of the National Library of Medicine, Research!America, Bethesda 2016

Conference Chair, “Public Access to Clinical Trials Workshop” Friends of the National Library of Medicine NIH/NLM, Bethesda June 10, 2013

Conference Chair, “Clinical Trials: New Challenges & Opportunities” Friends of the National Library of Medicine NIH/NLM, Bethesda June 6-7, 2011

Conference Chair, “The ePatient: Digital and Genomic Technologies for Personalized Health Care” Friends of the National Library of Medicine NIH/NLM, Bethesda April 6-7, 2010

Conference Chair, “Personal Electronic Health Records: From Biomedical Research to People’s Health” Friends of the National Library of Medicine NIH/NLM, Bethesda May 20-21, 2009

Conference Chair, National Forum on Healthcare Knowledge Management, Washington DC 2007-2009

National Advisory Council for Healthcare Research and Quality to the Secretary of Health and Human Services (AHRQ), Washington, DC 2004-2005

Commissioner of Health,
St. Louis Area Public Health Commission, St. Louis MO

Board of Directors and Chair of Public Policy Committee
American Medical Informatics Association, 2002-2006

Chair, Legacy Review Committee and Tobacco Council
Association of Schools of Public Health

Member of BLIRC Scientific Study Section, National Library of Medicine, NIH, 2001-2005

Committee Member, Institute of Medicine (IOM)
Patient Safety: Achieving a New Standard for Care, Washington, DC (2004)

Committee Member, Institute of Medicine (IOM)
Key Capabilities of an Electronic Health Record System:
Letter Report (2003)

Institute of International Education, Fulbright Review Panel.

Panelist, Institute of Medicine (IOM)
Unintended Consequences of Health Policy Programs Washington DC (2001)

Committee Member, Institute of Medicine (IOM)
Enhancing Federal Healthcare Quality Programs, Washington, DC. (2001)

Program Chair, American Medical Informatics Association,
Spring 2000 Meeting.

MEDINFO-2001 - World Congress of Medical Informatics, Scientific Program
Committee.

Promotion and Tenure Committee, School of Medicine, University of Missouri-
Columbia

Agency for Healthcare Research and Quality, Research Review Panels

Institute of Medicine, "Quality of Health Care in America," Technical Advisory
Panel

Chair, Medical Group Management Association, Research Committee.

Gallup Leadership Institute Executive Program.

Chair of the Awards Committee, American Medical Informatics Association.

Curriculum Design Committee for the Problem-Based Learning Block III of the
Medical School

Hungarian Academy of Sciences (Special Emphasis Panel).

Board Member of the John von Neumann Symposia on Computer

Science Section on Biomedical Applications (1985-88).

Program Committee of the John von Neumann Symposia on Medical Applications of Computers.

**CITATIONS BY
INSTITUTE OF
MEDICINE,
NATIONAL
ACADEMIES
PRESS**

HHS in the 21st Century: Charting a New Course for a Healthier America (2009)

Evidence-Based Medicine and the Changing Nature of Healthcare: Meeting Summary (IOM Roundtable on Evidence-Based Medicine) (2008)

Retooling for an Aging America: Building the Health Care Workforce (2008)

The Learning Healthcare System: Workshop Summary (IOM Roundtable on Evidence-Based Medicine) (2007)

Preventing Medication Errors: Quality Chasm Series (2007)

Hospital-Based Emergency Care: At the Breaking Point (2007)

Rewarding Provider Performance: Aligning Incentives in Medicare (Pathways to Quality Health Care Series) (2007)

The Learning Healthcare System: Workshop Summary (IOM Roundtable on Evidence-Based Medicine) (2007)

Examining the Health Disparities Research Plan of the National Institutes of Health: Unfinished Business (2006)

A Strategy for Assessing Science: Behavioral and Social Research on Aging (2006)

Saving Women's Lives: Strategies for Improving Breast Cancer Detection and Diagnosis (2005)

Quality Through Collaboration: The Future of Rural Health Care (2005)

Improving Breast Imaging Quality Standards (2005)

Patient Safety: Achieving a New Standard for Care (2004)

Fulfilling the Potential of Cancer Prevention and Early Detection: An American Cancer Society and Institute of Medicine Symposium (2004)

1st Annual Crossing the Quality Chasm Summit: A Focus on Communities (2004)

Health Professions Education: A Bridge to Quality (2003)

Unintended Consequences of Health Policy Programs and Policies: Workshop Summary (2001)

Crossing the Quality Chasm: A New Health System for the 21st Century (2001)

**GRANTS AND
CONTRACTS
(CURRENT AND
COMPLETED)**

Distinguishing practices of outstanding productivity and expansion in biomedical research

National Institutes of Health R01 GM146338

Principal Investigator Balas (\$608,958; 2021 - 2024)

Telemedicine needs assessment of physicians in the state of Georgia

Department of Public Health, State of Georgia

Project Director (\$40,000) 2013-2014

Conference on personal electronic health records, from biomedical research to individual health, 2009 Robert Wood Johnson Foundation, Project Director (\$25,000) 2009

Personal Electronic Health Record to Transform Health Care: A National Conference The Commonwealth Fund. Project Director (\$10,000) 2009

BioSense Evaluation

Center for Disease Control (CDC) and Mayo Clinic Co-Investigator (\$100,000) 2006-2009

SNOMED in Biosurveillance

Center for Disease Control (CDC) and Mayo Clinic Co-Investigator (\$100,000) 2006-2009

A New Model of Chronic Disease Management

Centene Corporation, Project Director (\$204,960) 2005-2007

PANACEIA Interactive Health Television. European Commission, Project director (\$100,000) 2003-2004

Integrated Advanced Information Management System (IAIMS) Planning. National Library of Medicine, Project Director (\$250,00) 2004-2006

Boonslick Rural Network Consortium. Cooper County Memorial Hospital, Co-Investigator (\$237,755), 2001-2004.

Point of Care Delivery of Research Evidence: Patient Safety and Training for Minority Health Care (Supplement). Agency for Healthcare Research and Quality. RO1-HS10472-02, Principal Investigator (\$254,512), 2001-2004.

Point of Care Delivery of Research Evidence. Agency for Healthcare Research and Quality, RO1-HS10472, Principal Investigator (\$1,453,000), 2000-2004.

LIQUID - Cross-Lingual Access to Clinical Information, European Commission, Project Co-Director (\$17,022), 2001-2003.

Citizen Health System. European Commission, Project Director (\$110,000), 2000-2003.

Evidence, Economics and Quality in Health Care Decision-Making Seminar. Seminar in Regensburg, Germany, Principal Investigator (\$20,708), 2000.

Surveillance Research for Health Care Improvement in Missouri. Department of Health and Human Services, (\$2,882,108), 1999-2002.

Local Health Policies and International Telemedicine Applications. U.S. Department of Education/European Commission, P116J990024, Principal Investigator (\$184,225), 1999-2002.

Cost Containment Initiatives that Produce Sustainable Savings. Missouri Kidney Program, Co-Investigator (\$53,872), 1999-2000.

Meta-Analysis of Clinical Information Service Trials. National Library of Medicine, Washington D.C., LM05545, Principal Investigator (\$506,121), 1995-2002.

European Union Center. European Commission, Brussels, Belgium, Project Director (\$423,834), 1998-2002.

Web-based Multimedia Pediatric Asthma Education Program, Santosh Krishna NIH Dissertation Award, Agency for Healthcare Research and Quality, Faculty Sponsor (\$28,733), 1999-2000.

Internet Services for the Medicare Quality Improvement Program. Missouri Patient Care Review Foundation, Project (\$84,700), 1999-2000.

Cost-Effectiveness of Rehabilitation. American Academy of Physical Medicine and Rehabilitation, Principal Investigator (\$65,000), 1997.

Medical cost-offset in rheumatoid arthritis. Arthritis Foundation, Co-Investigator (\$100,000), 1997.

Integrated Advanced Information Management System. National Library of Medicine, Co-Investigator (\$2,750,000), 1996-2000.

Retrieval of Research Evidence for Quality Improvement. National Library of Medicine, Principal Investigator (\$25,000), 1995-1996.

Practice Patterns and Health Care Information Systems. Center for Health Management Research, Principal Investigator (\$168,589), 1995-1996.

Evidence-Based Disease Management. Scottish Rite Children's Medical Center, Atlanta, Project Director (\$165,000), 1996.

Development of Clinical Process-Outcome Parameters. Group Health Plan, St. Louis, Project Director (\$3,000), 1995.

Quality Scorecard in Mental Health Care. Missouri Department of Mental Health, Principal Investigator (\$9,000), 1995.

Maternal and Child Health Interdisciplinary Leadership Training. Maternal and Child Health Bureau, Co-Investigator (\$450,000), 1995-1996.

Second office and consulting practices of physicians. Agency for Health Care Policy and Research, Co-Investigator (\$72,380), 1994-1995.

Individualized Feedback to Implement Clinical Guidelines. Agency for Health Care Policy and Research, Principal Investigator (\$444,000), 1994-1996.

Physician Profiling and Information Resources. Humana Health Care Plans, Kansas City, Project Director (\$6,500), 1994.

Registry and Analysis of Computer Trials in Primary Care. Agency for Health Care Policy and Research, Principal Investigator (\$66,078), 1993-1994.

Clinical Effect of Renal Database Reports. Missouri Kidney Program, Principal Investigator (\$40,765), 1993-1994.

Collection of Clinical Information Service Trials. MU Research Board, Principal Investigator (\$48,629), 1993-1994.

Policy Paper on Practice Parameters for the Show-Me Health Reform. Missouri Department of Health, Jefferson City, Principal Investigator (\$5,000), 1993.

Analyses of Practice Variation in Missouri. Missouri State Medical Association and Missouri Hospital Association, Principal Investigator (\$18,000), 1993.

Delayed Feedback to Reduce Practice Variation in RRT. Missouri Kidney Program, Principal Investigator (\$28,439), 1992-1993.

Medical Informatics Research Training Project. National Library of Medicine, Co-Investigator (\$1,400,00), 1992-1997.

Patient Referrals and Transfers from the ER of a Rural Hospital. Keller Memorial Hospital, Fayette, Project Director (\$10,000), 1992.

Flow of Information in a Physical Therapy Department. University of Missouri Hospital and Clinics, Project Director (\$5,000), 1992.

Meta-Analysis of Behavioral Effect of Computer Feedback. MU Research Council, Principal Investigator (\$3,000), 1992.

Graphic integration of structural and functional information. Deseret Foundation, Co-Investigator (\$27,720), 1990-1991.

Expert System for Interpretation of Laboratory Data. National Institutes of Health, Principal Investigator (\$38,000), 1989.

**BOOKS AND
ARTICLES**

22. Balas EA. Innovative Research in Life Sciences - Pathways to Scientific Impact, Public Health Improvement and Economic Progress. John Wiley & Sons (2019).

21. Balas, E. A., & Ellis, L. M. (2017). Preclinical data: Three-point plan for reproducibility. *Nature*, 543(7643), 40-40.

20. Balas EA. Science and standing ground (Hung). Tortoma Press, Barot, 2012

19. Balas EA, Bridges JFP, Bright J, Clancy C, Drozda J, Elkin P, Gottlieb S, Luce BR, Pitts P, Rosenkrans, WA, Wilensky G: Improving Health Care Quality and Value: The Role of Comparative Effectiveness Research. Washington DC 2007

18. Balas EA, Krishna S From SARS To Systems: Developing Advanced Knowledge Management for Public Health. In Healy JC, Iakovidis I, Wilson P (Eds): eHealth IOS Press Amsterdam 2004

17. Krishna S, Balas EA, Boren S (Eds): Information Technology Business Models for Quality Health Care: An EU/US Dialog. IOS Press, Amsterdam, 2002

16. Balas EA. Body Part Legislation and Health Care Quality. Lewin M (ed) Unintended Consequences of Health Care Legislation. Institute of Medicine 2001.

15. Balas EA, Boren SA. Clinical Trials of Information Interventions. In Berner ES, Hannah KJ, Ball MJ (Eds): Clinical Decision Support Systems Theory and Practice. Springer-Verlag, New York, 1999:199-216.

14. Balas EA, Boren SA. Managing Clinical Knowledge for Health Care Improvement. *Yearbook of Medical Informatics*. Schattauer, 2000:65-70.

13. Boren SA, Balas EA, Su KC. Seeing the forest through the trees: Developing evidence-based profiling reports. In Piland NF, Lynam KB, editors. *Physician Profiling: A Source Book for Health Care Administrators*. San Francisco: Jossey Bass, 1999:47-63.
12. Balas EA, Boren SA, Brown GD, editors. *Information technology strategies from the United States and the European Union: Transferring research to practice for health care improvement*. Amsterdam: IOS Press, 2000, 123 pages.
11. Balas EA, Reid JC, Mitchell JA. Health informatics training at the University of Missouri. In van Bemmelen JH, McCray AT (Eds) *Yearbook of Medical Informatics*. Schattauer, Stuttgart, 1997.
10. Balas EA, Austin SM, Mitchell JA, Ewigman BG, Bopp KD, Brown GD. The Clinical Value of Computerized Information Services: A Review of 98 Randomized Clinical Trials. In van Bemmelen JH, McCray AT (Eds) *Yearbook of Medical Informatics*. Schattauer, Stuttgart, 1997.
9. Balas EA, Li ZR, Spencer DC, Jaffrey F, Brent E, Mitchell JA. An Expert System for Performance Based Direct Delivery of Published Clinical Evidence. In van Bemmelen JH, McCray AT (Eds) *Yearbook of Medical Informatics*. Schattauer, Stuttgart, 1997.
8. Balas EA. In search of organizational interventions to improve quality and contain cost of health care. In Beng CS (Ed) *Affordable Health Care*, Prentice Hall, Singapore, 1997.
7. Balas EA. Health Services in the United States. In D Wedding (Ed): *Behavior and Medicine*. Mosby, St. Louis, 1995.
6. Horner J, Balas EA, Kuebler K. Carter J. *Clinical Practice Patterns in Missouri: IV Pneumonia*. Missouri Hospital Association and Missouri State Medical Association, 1994.
5. Horner J, Balas EA, Kuebler K. Carter J. *Clinical Practice Patterns in Missouri: III CABG/PTCA*. Missouri Hospital Association and Missouri State Medical Association, 1994.
4. Horner J, Balas EA, Kuebler K. Carter J. *Clinical Practice Patterns in Missouri: II Carotid Endarterectomy*. Missouri Hospital Association and Missouri State Medical Association, 1994.
3. Spencer DC, Balas EA, Nashelsky JE. Information management. In Taylor RB (Ed): *Family Medicine: Principles and Practice*. Fourth edition, Springer Verlag,

New York, 1993.

2. Balas EA, Horner J, Kuebler K. Carter J. Clinical Practice Patterns in Missouri: I Cesarean Section. Missouri Hospital Association and Missouri State Medical Association, 1993.

1. Balas EA. Medical Informatics: Principles of Information Processes and Computer Applications. Medicina, 1-4th edition, Budapest, 1988-1991.

**REFEREED
PUBLICATIONS**

113. Agbali, R. A., Balas, E. A., Beltrame, F., Heboyan, V., & De Leo, G. (2023). A review of questionnaires used for the assessment of telemedicine. *Journal of Telemedicine and Telecare*, 1357633X231166161.

112. Aubert, C., Balas, E. A., Townsend, T., Sleeper, N., & Tran, C. J. (2022). Data Integration for the Study of Outstanding Productivity in Biomedical Research. *Procedia Computer Science*, 211, 196-200.

111. Balas EA., Kováts T., Mikulán R., Székács B., Török L., Kollai B. Athletic fitness development with electronic monitoring in older adult (Hung) *Orvosi Hetilap*, 162(51), 2061-2066.

110. Agbali, R., Balas, A. E., Beltrame, F., & De Leo, G. (2022). A review of audiovisual telemedicine utilization and satisfaction assessment during the COVID-19 pandemic. *International Journal of Technology Assessment in Health Care*, 38(1).

109. Mansour, N. M., Balas, E. A., Yang, F. M., & Vernon, M. M. (2020). Prevalence and Prevention of Reproducibility Deficiencies in Life Sciences Research: Large-Scale Meta-Analyses. *Medical Science Monitor: International Medical Journal of Experimental and Clinical Research*, 26, e922016-1.

108. Balas, E. A., & Chapman, W. W. (2018). Road Map for Diffusion of Innovation In Health Care. *Health Affairs*, 37(2), 198-204.

107. Vernon, M. M., Balas, E. A., & Momani, S. (2018). Are university rankings useful to improve research? A systematic review. *PloS one*, 13(3), e0193762.

106. Aelion, C. M., Airhihenbuwa, C. O., Alemagno, S., Amler, R. W., Arnett, D. K., Balas, A., ... & Buekens, P. M. (2016). The US Cancer Moonshot initiative. *The Lancet Oncology*, 17(5), e178-e180.

105. Balas, E. A., Vernon, M., Magrabi, F., Gordon, L. T., & Sexton, J. (2015, August). Big Data Clinical Research: Validity, Ethics, and Regulation. In *MEDINFO 2015: EHealth-enabled Health: Proceedings of the 15th World*

Congress on Health and Biomedical Informatics (Vol. 216, p. 448). IOS Press.

104. Balas EA, Elkin PL: Technology Transfer from Biomedical Research to Clinical Practice: Measuring Innovation Performance. *Evaluation & the Health Professions*, 2013 Dec;36(4):505-17

103. Balas EA: Fall and rise of freedom in Csík at the end of the 16th century: Uprising of 1599. *Yearbook of the Szekely Museum of Ciuc, Csikszereda* 2013

102. Balas EA, Halilović E., Mahmutović M, Mehmedović M, Husejnfendić S, Baraković V, Emoke Mihály E, Drašković M, Fazlović V, Rosić V, Jamakosmanović Z: Social Media and Future of Leadership. *Acta Universitatis Sapientiae, Social Analysis*, 1, 2 (2011) 154–166

101. Krishna S, Boren SA, Balas EA. Healthcare via cell phones: a systematic review. *Telemed J E Health*. 2009 Apr;15(3):231-40.

100. Balas EA, Tessema TA, Elkin P. Transfer of Knowledge in Controlling Disease Outbreaks. *Acta Informatica Medica* March 2009 (17) 1:4-14.

99. Elkin PL, Brown SH, Balas A, Temesgen Z, Wahner-Roedler D, Froehling D, Liebow M, Trusko B, Rosenbloom ST, Poland G. Biosurveillance evaluation of SNOMED CT's terminology (BEST Trial): coverage of chief complaints. *Stud Health Technol Inform*. 136, 797-802, 2008.

98. Balas EA, Krishna S, Tessema T. eHealth: Connecting Healthcare and Public Health. *Studies in Health Technology and Informatics*. 134, 169-176, 2008.

97. Boren SA, De Leo G, Chanetsa FF, Donaldson J, Krishna S, Balas EA. Evaluation of a Diabetes Education Call Center intervention. *Telemed J E Health*. 12(4), 457-465, 2006 Aug.

96. De Leo G, Krishna S, Boren S, Fato M, Porro I, Balas E A. Web and Computer Telephone-Based Diabetes Education: Lessons Learnt from the Development and Use of a Call Center. *J Med Syst*, 2005; 29(4):343-355

95. Maglaveras N, Chouvarda I, Koutkias VG, Gogou G, Lekka I, Goulis D, Avramidis A, Karvounis C, Louridas G, Balas EA. The Citizen Health System (CHS): A Modular Medical Contact Center Providing Quality Telemedicine Services. *IEEE Trans Inf Tech Biomed* 2005; 9(3):1-10

94. Krishna S, Balas EA, Francisco BD, Konig P. Effective and Sustainable Multimedia Education for Children with Asthma: A Randomized Controlled Trial. *Children's Health Care*, January 2006.

93. Kawamoto K, Houlihan CA, Balas EA, Lobach DF. Improving Clinical Practice Using Clinical Decision Support Systems: A Systematic Review of Randomized Controlled Trials to Identify System Features Critical to Success. *British Medical Journal BMJ* 2005;330:765.
92. Goulis DG, Giaglis GD, Boren SA, Lekka I, Balas EA, Maglaveras N, Avramides A. Effectiveness of home-centered care through telemedicine applications for overweight and obese patients: a randomized controlled trial. *Int J Obes Relat Metab Disord.* 2004 Nov;28(11):1391-8.
91. Wutoh R, Boren SA, Balas EA. eLearning: A Review of Internet-based Continuing Medical Education. *J Contin Educ Health Prof.* 2004 Winter;24(1):20-30.
90. Balas EA, Krishna S, Kretschmer RA, Cheek TR, Lobach DF, Boren SA. Computerized Knowledge Management in Diabetes Care. *Medical Care* 2004;42(6):610-621.
89. Maglaveras N, Chouvarda I, Koutkias V, Lekka I, Tsakali M, Tsetoglou S, Maglavera S, Leondaridis L, Zeevi B, Danelli V, Kotis T, De Moore G, Balas EA. Citizen centered health and lifestyle management via interactive TV: The PANACEIA-ITV health system. *AMIA Annu Symp Proc.* 2003:415-9.
88. Nerlich M, Balas EA, Schall T, Stieglitz SP, Filzmaier R, Asbach P, Dierks C, LaCrois A, Watanabe M, Sanders JH, Doarn CR, and Merrell RC. Teleconsultation Practice Guidelines: Report from G8 Global Health Applications Subproject. *Telemedicine Journal* 2002;8:411-6
87. Krishna S, E. Balas EA, Boren SA, Maglaveras N. Patient Acceptance of Educational Voice Messages: A Review of Controlled Clinical Studies. *Methods of Information in Medicine* 2002; 41(5):360-369.
86. Krishna S, Francisco BD, Balas EA, König P, Graff GD, Madsen RW. Internet-enabled Interactive Multimedia Asthma Education Program: A Randomized Trial. *Pediatrics.* 2003 Mar;111(3):503-10.
85. Holmes JH, Balas EA, Boren SA. A guide for developing patient safety curricula for undergraduate medical education. *Journal of the American Medical Informatics Association.* 2002;9(Nov-Dec suppl):S124-S127.
84. Krishna S, DeLeo G, Balas EA. Evidence-based automated preventive care scheduling. In Kohane I, editor. *Biomedical Informatics: One Discipline. Proceedings of the 2002 AMIA Annual Symposium; 2002 Nov 9-13; San*

Antonio, Texas. Page 1068.

83. Maglaveras N, Chouvarda I, Koutkias V, Meletiadis S, Haris K, Balas EA. Information technology can enhance quality in regional health delivery. *Methods Inf Med.* 2002;41(5):393-400.

82. DeLeo G, Krishna S, Balas EA, Maglaveras N, Boren SA, Beltrame F, Fato M. WEB-WAP based telecare. In Kohane I, editor. *Biomedical Informatics: One Discipline. Proceedings of the 2002 AMIA Annual Symposium; 2002 Nov 9-13; San Antonio, Texas.* Pages 200-204.

81. Pakpahan R, Balas EA, Boren SA. Computable decision modules for patient safety in child health care. *Proc AMIA Symp.* 2002:592-6.

80. Maglaveras N, Gogou G, Chouvarda I, Koutkias V, Lekka I, Giaglis G, Adamidis D, Karvounis C, Louridas G, Goulis D, Avramidis A, Balas EA. Communication infrastructure in a contact center for home care monitoring of chronic disease patients. In Kohane I, editor. *Biomedical Informatics: One Discipline Proceedings of the 2002 AMIA Annual Symposium; 2002 Nov 9-13; San Antonio, Texas.* Pages 479-483.

79. Maglaveras N, Koutkias V, Chouvarda I, Goulis DG, Avramides A, Adamidis D, Louridas G, Balas EA. Home care delivery through the mobile telecommunications platform: the Citizen Health System (CHS) perspective. *Int J Med Inf.* 2002 Dec 18;68(1-3):99-111.

78. West TD, Gupta M, Balas EA, West DA. Identifying cost management strategies in dialysis clinics: sustainable savings with positive outcomes. *Am J Manag Care.* 2002 May;8(5):449-60.

77. Maglaveras N, Koutkias V, Meletiadis S, Chouvarda I, Balas EA. The role of wireless technology in home care delivery. *Medinfo.* 2001;835-9.

76. Balas EA. Information systems can prevent errors and improve quality. *J Am Med Inform Assoc.* 2001;8(4):398-9.

75. Balas EA, Weingarten S, Garb CT, Blumenthal D, Boren SA, Brown GD. Improving preventive care by prompting physicians. *Arch Intern Med.* 2000;160(3):301-8.

74. West DA, Balas EA, West TD. Financial managers' costing expertise is needed in clinical trials. *Journal of Health Care Finance* 2000;27(1):11-20.

73. Balas EA, Iakovidis I. Distance technologies of patient monitoring. *BMJ*

1999;319:1309.

72. Boren SA, Balas EA. Evidence-based quality measurement. *J Ambul Care Manage.* 1999 Jul;22(3):17-23.

71. Balas EA, Kretschmer RA, Gnann W, West DA, Austin Boren S, Centor R, Nerlich M, Gupta M, West T, Soderstorm NS. Interpreting cost analyses of clinical interventions. *JAMA* 1998;279:54-7.

70. Balas EA, Austin Boren S, Hicks LL, Chonko AM, Stephenson K. Effects of Linking Practice Data to Published Evidence: a Randomized Controlled Trial of Clinical Direct Reports. *Medical Care* 1998;36:79-87.

69. Balas EA, Su KC, Solem JF, Li RZ, Brown GD. Upgrading clinical decision-support with published evidence: What can make the biggest difference? In *MEDINFO* 1998: 845-8.

68. West TD, Balas EA, West DA. Health care policy and treatment costing systems: A field study. *Advances in Management Accounting* 1998;6:163-93.

67. Balas EA, Boren SA, Griffing G. Computerized management of diabetes: a synthesis of controlled trials. *JAMIA Suppl* 1998;:295-9.

66. Balas EA. From appropriate care to evidence-based medicine. *Pediatr Ann.* 1998 Sep;27(9):581-4.

65. Krishna S Balas EA, Griffin JZ, Austin Boren S. Clinical Trials of Interactive Computerized Patient Education: Implications for Family Practice. *J Fam Pract* 1997;45:25-33.

64. Balas EA, Jaffrey F, Kuperman GJ, Austin Boren S, Brown GD, Pincioli F, Mitchell J. Electronic Communication with Patients: Evaluation of Distance Medicine Technologies. *JAMA* 1997;278:152-9.

63. Balas EA, Stockham MG, Mitchell JA, Sievert ME, Ewigman BG, Austin Boren SM. In Search of Controlled Evidence for Health Care Quality Improvement. *J Med Syst* 1997;1:21-32.

62. Marshall J, Balas EA, Reid JC. Technique for efficient information retrieval in outpatient systems. *JAMIA Suppl* 1997:76-80.

61. Balas EA, Boren SA, Brown GD, Ewigman BG, Mitchell JA, Perkoff GT. Effect of physician profiling on utilization. Meta-analysis of randomized clinical trials. *J Gen Intern Med.* 1996;11(10):584-90.

60. Balas EA, Austin SM, Mitchell JA, Ewigman BG, Bopp KD, Brown GD. The Clinical Value of Computerized Information Services: A Review of 98 Randomized Clinical Trials. *Arch Fam Med* 1996;5:271-8.
59. Balas EA, Li ZR, Spencer DC, Jaffrey F, Brent E, Mitchell JA. An Expert System for Performance Based Direct Delivery of Published Clinical Evidence. *J Am Med Inf Assoc* 1996;3:56-65.
58. West DA, Hicks LL, Balas EA, West TD. Profitable capitation requires accurate costing. *Nursing Economics* 1996;14:162-70.
57. West TD, Balas EA, West DA. Contrasting RCC, RVU, and ABC for managed care decisions. *Healthcare Financial Management* 1996;8:54-61.
56. Harr SD, Balas EA, Mitchell JA. Developing quality indicators as educational tools to measure the implementation of clinical practice guidelines. *Am J Med Quality* 1996;11(4):179-185.
55. Balas EA, Stockham MG, Mitchell JA, Austin SM, West DA, Ewigman BG. The Columbia Registry of Information and Utilization Management Trials. *J Am Med Inf Assoc* 1995;2:307-15.
54. Balas EA, Hicks LL, Stone JV, Ponferrada LP, West DA. Financial effect of clinical decisions: case study of a dialysis center. *J Med Syst.* 1995;19(6):465-74.
53. Balas EA, Gardner D, Hamdy O, Li ZR, Mitchell JA. Multipurpose practice guideline modules for clinical decision analysis and quality improvement. *Medinfo* 1995;1001-4.
52. Balas EA, Austin SM, Ewigman BG, Brown GD, Mitchell JA. Methods of randomized controlled clinical trials in health services research. *Medical Care* 1995;33(7):687-699.
51. Fortune GJ, Balas EA, Hegemann B, LaFerney RC, Luebbering T, Neikirk HJ, Weathers R. Retrospective analysis of the utilization of right-sided cardiac catheterization in association with left-sided cardiac catheterization in patients with coronary artery disease. *Mo Med.* 1995;92(9):588-90.
50. Balas EA, Li RZ, Mitchell JA, Spencer DC, M.D., Brent E, Ewigman BG. A Decision-Support System for the Analysis of Clinical Practice Patterns. *J Am Med Inf Assoc* 1994;(S)366-70.

49. Austin SM, Balas EA, Ewigman BG, Mitchell JA. Effect of Physician Reminders on Preventive Care: Meta-Analysis of Randomized Clinical Trials. *J Am Med Inf Assoc* 1994;(S)121-4.
48. Balas EA, Puryear J, Mitchell JA, Bopp KD, Barter B. How to structure clinical practice guidelines for continuous quality improvement ? *J Med Syst* 1994;18:289-97.
47. Klimczak JC, Balas EA. Decision support systems: fact and fiction. *Mo Med.* 1994 Apr;91(4):176-8.
46. Harr DS, Balas A. Managing physician practice patterns: providing information feedback to improve quality care & reduce cost. *Mo Med.* 1994 Mar;91(3):138-9.
45. Hausam RR, Balas EA. Computerized medical records. Dream or reality? *Mo Med.* 1993 Oct;90(10):649-52.
44. Balas EA, Austin SM, Brown GD, Mitchell JA. Quality evaluation of controlled clinical information service trials. In Safran C. (Ed): *Proceedings of the Symposium on Computer Applications in Medical Care*, McGraw-Hill, 1993.
43. Balas EA, Mitchell JA, Bopp KD, Brown GD, Ewigman BG. The Columbia Registry of Controlled Clinical Computer Trials. In Frisse ME (Ed): *Proceedings of the Symposium on Computer Applications in Medical Care*, McGraw-Hill, 1992.
42. Balas EA, Pryor TA, Hebertson RM, Haug, PJ, Twede, M. A Computer Method for Visual Presentation and Programmed Evaluation of Labor. *Obstetrics and Gynecology* 1991;78:419-23.
41. Farsang C, Peter M, Balas EA, Feher J. The effect of prazosin and hydrochlorotiazide on the concentration of lipoproteins and lipids in plasma. *Pol Tyg Lek* 1989;44:289-92.
40. Iurenev AP, Diakonova EG, Balas EA, Pal L, Niederle P. Treatment of hypertensive patients: Randomized multicenter research *Kardiologiya* 1988;28:77-8.
39. Balas EA. Best subset algorithm for selection of relevant diagnostic tests. In Willems JL, van Bommel JH (Eds): *Progress in Biological Function Analysis by Computer Technologies*. Elsevier-North Holland, Amsterdam, 1987.
38. Farsang C, Peter M, Balas EA, Feher J. Prazosin improves atherogenic index

and inhibits the deleterious effect of dihydrochlorothiazide in patients with essential hypertension. *J Card Pharm* 1987;10(S):240-3.

37. Balas EA, Simon P. Sampling for statistical evaluation of diagnostic tests. *Medical Informatics Europe*. Rome, 1987, pp. 1251-1256.

36. Farsang CS, Peter M, Balas EA, Feher J. The effect of Minipress and Hypothiazid treatment on plasma lipoproteins. *Orv Hetilap* 1987;128:34-8.

35. Balas EA, Simon P, Sandi M, Varaljai T. Microcomputer interpretation of data for regional management of health service. In Salamon R, Blum B, Jorgensen M (Eds): *MEDINFO-86*. Elsevier-North Holland, Amsterdam, 1986.

34. Balas EA, Simon P, Timar J, Varaljai T. On the methodology of developing medical information systems. *Eu Gazd Sz* 1985;23:374-80.

33. Jacobs C, Diallo A, Balas EA, Nectoux M, Etienne S. Maintenance hemodialysis treatment in patients aged over 60 years: Demographic profile, clinical aspects, and outcome. *EDTA* 1985;21:477-89.

32. Rizzoni G, Broyer M, Brunner FP, Brynner H, Challah S, Kramer, P, Oules R, Selwood NH, Wing AJ, Balas EA. Combined report on regular dialysis and transplantation of children in Europe, XIII, 1983. *EDTA* 1985;21:66-95.

31. Kramer, P, Broyer M, Brunner FP, Brynner H, Challah S, Oules R, Rizzoni G, Selwood NH, Wing AJ, Balas EA. Combined report on regular dialysis and transplantation in Europe, XIV, 1983. *EDTA* 1985;21:2-65.

30. Benevolenskaya LT, Brezhovsky MM, Boycova OB, Mitusova M, Gerec E, Balas EA, Bruszt V. Evaluation of diagnostic criteria for gout. *Terap Arch* 1985;17:110-9.

29. Farsang Cs, Kapocsi J, Varga K, Balas EA. Endorphin and essential hypertension. *Acta Phys Hung* 1985;65:217-226.

28. Balas EA, Merei J. On statistical comparison of two diagnostic tests. *Comput Biomedical Res* 1985;18:497-506.

27. Taraba I, Balas EA. Non-invasive diagnostic techniques in chronic renal dialysis programs. *Orv Akt Probl* 1985;51:124-8.

26. Taraba I, Balas EA, Fazakas L, Hering A, Torok K. Short-time peritoneal dialysis. *Acta Med Hung* 1984;41:129-133.

25. Farsang CS, Varga K, Vajda L, Kapocsi J, Balas EA, Kunos Gy. Endorphin contributes to the antihypertensive effect of clonidine in a subset of patients with essential hypertension. *Neuropeptides* 1984;4:293-299.
24. Balas EA, Taraba I. Statistical analysis of monitoring examinations in chronic peritoneal dialysis program. *Acta Med Hung* 1984;141:279-287.
23. Hars L, Deutsch T, Graber H, Belovai Zs, Balas EA. Individualized antibiotic treatment planning. In Gyori I., Eller J, Csirik J, Mizsei I (Eds) *Computers and Information Methods in Medicine and Biology*, Szeged, 1984.
22. Deutsch T, Taraba I, Belovai Zs, Hars L, Balas EA. Computer-assisted design of hemodialysis treatment. In Gyori I., Eller J, Csirik J, Mizsei I (Eds) *Computers and Information Methods in Medicine and Biology*, Szeged, 1984.
21. Saghy A, Mohacsi E, Balas EA, Szollosi A. A computer program to teach medical diagnosis-making. In Gyori I., Eller J, Csirik J, Mizsei I (Eds) *Computers and Information Methods in Medicine and Biology*, Szeged, 1984.
20. Bruszt V, Balas EA, Jurenyev AP, Varaljai T. Computerized organization of an international cooperative clinical experiment. In Gyori I., Eller J, Csirik J, Mizsei I (Eds) *Computer and Information Methods in Medicine and Biology*, Szeged, 1984.
19. Varaljai T, Janosi A, Horvath B, Balas EA. A information system for the follow-up of patient after open-heart surgery. In Gyori I., Eller J, Csirik J, Mizsei I (Eds) *Computers and Information Methods in Medicine and Biology*, Szeged, 1984.
18. Szollosi A, Balas EA, Forgacs A, Horanyi J, Weltner J. Computerized analysis of surgery data. In Gyori I., Eller J, Csirik J, Mizsei I (Eds) *Computers and Information Methods in Medicine and Biology*, Szeged, 1984.
17. Kismarty-Lechner I, Sali A, Saghy A, Varaljai T, Szollosi A, Balas EA. Computer program for laboratory test ordering. In Gyori I., Eller J, Csirik J, Mizsei I (Eds) *Computers and Information Methods in Medicine and Biology*, Szeged, 1984.
16. Balas EA. An algorithm for the selection of the best subset. In Gyori I., Eller J, Csirik J, Mizsei I (Eds) *Computers and Information Methods in Medicine and Biology*, Szeged, 1983.
15. Varaljai T, Balas EA. Error check and reliability in the applications of the CHRONOS system. In Gyori I., Eller J, Csirik J, Mizsei I (Eds) *Computers and*

Information Methods in Medicine and Biology, Szeged, 1983.

14. Hegedus Cs, Balas EA. Frequent association of colon cancer with cirrhosis. Magyar Onkologia 1983;27:68-72.

13. Hegedus C, Balas EA. Large bowel cancer and liver cirrhosis. Connection between the two diseases. Gastroenterol Clin Biol. 1983;7(11):941-2.

12. Szalay L, Szepeshazy K, Balas EA, Hering A, Kenez B, Varga K, Nagy Z. Glomerulonephritis and immunosuppression. Orvoskepzes 1983;58:358-364.

11. Balas EA, Varaljai T, Juhasz I. Computer-assisted follow-up of chronic diseases. Orvoskepzes 1982;57:63-68.

10. Balas EA, Varaljai T, Juhasz I. CHRONOS-H - A general computer-assisted follow-up system. Cor et Vasa 1982;24:187-189.

9. Balas EA, Taraba I, Thai L. Mathematical methods for optimizing laboratory testing protocol of chronic peritoneal dialysis program. In Klinkmann H, Ahrenholz P, Biester F, Courtney J, Falkenhagen D, Gaylor J (Eds): Kinetic Modelling in Artificial Organs. International Society for Artificial Organs, Rostock, 1982.

8. Kleiber M, Szekeres G, Balas EA. Differential leucocyte count screening with an automatic analyzer (PHA-1). Medicor News 1982;15:22-26.

7. Taraba I, Balas EA. The effectiveness of chronic peritoneal dialysis. Orv Hetilap 1981;122:31-34.

6. Taraba I, Spustova V, Balas EA, Dzurik R, Petranyi Gy. Peritoneal dialysability of uremic substances. Int Urol Nephrol 1981;13:193-198.

5. Szekacs B, Juhasz I, Balas EA, Kovach AGB. Effect of renal arterial constriction on mesenteric activity. Int Urol Nephrol 1981;13:111-117.

4. Kleiber M, Balas EA, Szekeres G. Screening method for qualitative white blood cell analysis with PHA-1 hematologic analyzer. J Clin Chem Biochem 1981;19:731.

3. Balas EA, Varaljai T, Fedina L, Juhasz I.: Application of the CHRONOS follow-up system in clinical research. In Gyori I. (Ed) Computers and Information Methods in Medicine and Biology, Szeged, 1980.

2. Szekacs B, Juhasz I, Balas EA, Kovach AGB. The effect of renal artery

constriction on the efferent activity of mesenteric nerve. Urol Nephrol Sz 1980;7:2-8.

1. Balas EA, Tiba M. Analysis of medical decision-making profiles. In Gyori I (Ed): Computers and Information Methods in Medicine and Biology, Szeged, 1977.