




Michael B. Fowler, MBBS, FRCP

Professor of Medicine (Cardiovascular), Emeritus
Medicine - Cardiovascular Medicine

 NIH Biosketch available Online

 Curriculum Vitae available Online

CONTACT INFORMATION

- **Alternate Contact**

Mailan Smith - Administrative Assistant

Email mvsmith@stanford.edu

Tel (650) 723-5562

Bio

BIO

Dr. Michael Fowler is a Professor of Cardiovascular Medicine at Stanford Hospital & Clinics.

Dr. Fowler attended the Charing Cross Hospital Medical School, London, England. He has been elected to be a fellow in the Royal College of Physicians. He came to Stanford University on a British Heart Foundation, American Heart Association reciprocal fellowship award.

Dr. Fowler was appointed to the faculty in 1982. He is former Medical Director of the Heart Failure Program at Stanford University School of Medicine and Medical Director of the Stanford Cardiomyopathy Center.

Dr. Fowler has specialized in the treatment and research related to heart failure for over 35 years. He played an important role in the development of beta blocking drugs to treat heart failure and has also participated in most and the major studies that have led to our current comprehensive treatment for heart failure with drugs and devices. He is an expert in evaluating patients who may benefit from cardiac transplantation or mechanical support therapy.

ACADEMIC APPOINTMENTS

- Emeritus Faculty - University Medical Line, Medicine - Cardiovascular Medicine
- Member, Bio-X
- Member, Cardiovascular Institute

ADMINISTRATIVE APPOINTMENTS

- Clinical Asst. Prof. of Medicine, Stanford University Medical Center, (1984-1986)
- Co-Director, Cardiac Advanced Therapies Clinic, Stanford University Medical Center, (1984-1991)
- Co-Director, Coronary Care Unit, Stanford University Medical Center, (1986-1991)

- Assistant Professor of Medicine, CardiovascularMedicine, Stanford University Medical Center, (1986-1993)
- Co-Director, Heart Failure Clinic, Stanford University Medical Center, (1991-2001)
- Director, Heart Failure Program, Stanford University Medical Center, (1991-2017)
- Assoc. Prof. of Medicine, CardiovascularMedicine, Stanford University Medical Center, (1993-1999)
- Professor of Medicine, CardiovascularMedicine, Stanford University Medical Center, (1999- present)
- Medical Director, CardiomyopathyCenter, Stanford University Medical Center, (2001- present)

PROFESSIONAL EDUCATION

- Research Fellowship, Stanford University School of Medicine (1984)
- Fellowship, Kings College Hospital UK (1982)

LINKS

- Get a Second Opinion: <https://stanfordhealthcare.org/second-opinion/overview.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Adrenergic nervous system; beta-adrenergic function in, heart failure; drugs in heart failure.

CLINICAL TRIALS

- Study of the Effect of Sitagliptin on Glucose (Sugar) Metabolism in Patients With Heart Failure, Not Recruiting

Publications

PUBLICATIONS

- **Short-term outcomes of en bloc combined heart and liver transplantation in the failing Fontan** *CLINICAL TRANSPLANTATION*
Vaikunth, S. S., Concepcion, W., Daugherty, T., Fowler, M., Lutchman, G., Maeda, K., Rosenthal, D. N., Teuteberg, J., Woo, Y., Lui, G. K.
2019; 33 (6)
- **Serial Cardiac FDG-PET for the Diagnosis and Therapeutic Guidance of Patients With Cardiac Sarcoidosis** *JOURNAL OF CARDIAC FAILURE*
Ning, N., Guo, H., Jagaru, A., Mitra, E., Fowler, M., Witteles, R.
2019; 25 (4): 307–11
- **Short-Term Outcomes of en bloc Combined Heart and Liver Transplantation in the Failing Fontan.** *Clinical transplantation*
Vaikunth, S. S., Concepcion, W., Daugherty, T., Fowler, M., Lutchman, G., Maeda, K., Rosenthal, D. N., Teuteberg, J., Joseph Woo, Y., Lui, G. K.
2019: e13540
- **Serial Cardiac FDG-PET for the Diagnosis and Therapeutic Guidance of Patients with Cardiac Sarcoidosis.** *Journal of cardiac failure*
Ning, N., Guo, H. H., Jagaru, A., Mitra, E., Fowler, M., Witteles, R.
2019
- **A Changing Landscape of Mortality for Systemic Light Chain Amyloidosis.** *JACC. Heart failure*
Barrett, C. D., Dobos, K. n., Liedtke, M. n., Tuzovic, M. n., Haddad, F. n., Kobayashi, Y. n., Lafayette, R. n., Fowler, M. B., Arai, S. n., Schrier, S. n., Witteles, R. M.
2019
- **SERIAL CARDIAC FDG-PET IN THE DIAGNOSIS AND THERAPEUTIC GUIDANCE OF PATIENTS WITH CARDIAC SARCOIDOSIS: A STANFORD EXPERIENCE**
Ning, N., Guo, H. H., Jagaru, A., Mitra, E., Fowler, M., Witteles, R.
ELSEVIER SCIENCE INC.2018: 1690
- **OUTCOME OF EN-BLOC COMBINED HEART AND LIVER TRANSPLANTATION IN THE ADULT FAILING FONTAN**

Vaikunth, S., Concepcion, W., Daugherty, T., Fowler, M., Lutchman, G., Maeda, K., Rosenthal, D., Teuteberg, J., Woo, Y., Lui, G. K.
ELSEVIER SCIENCE INC.2018: 539

- **An informatics-based approach to reducing heart failure all-cause readmissions: the Stanford heart failure dashboard.** *Journal of the American Medical Informatics Association*
Banerjee, D., Thompson, C., Kell, C., Shetty, R., Vetteth, Y., Grossman, H., DiBiase, A., Fowler, M.
2016
- **Dipeptidyl Peptidase 4 Inhibition Increases Myocardial Glucose Uptake in Nonischemic Cardiomyopathy** *JOURNAL OF CARDIAC FAILURE*
Witteles, R. M., Keu, K. V., Quon, A., Tavana, H., Fowler, M. B.
2012; 18 (10): 804-809
- **Chemotherapy-Associated Cardiotoxicity: How Often Does it Really Occur and How Can it Be Prevented?** *HEART FAILURE CLINICS*
Witteles, R. M., Fowler, M. B., Telli, M. L.
2011; 7 (3): 333-?
- **GENETIC DETERMINANTS OF DRAMATIC IMPROVEMENT IN LEFT VENTRICULAR FUNCTION IN PATIENTS WITH HEART FAILURE** *60th Annual Scientific Session and Expo of the American-College-of-Cardiology (ACC) / 12 Summit / ACCF/Herman K. Gold Young Investigator's Award in Molecular and Cellular Cardiology*
Perez, M. V., Pavlovic, A., Wheeler, M. T., Dewey, F. E., Bernstein, D., Fowler, M. B., Robbins, R. C., Quertermous, T., Chan, K., Absher, D., Ho, M., Cretti, E., Southwick, et al
ELSEVIER SCIENCE INC.2011: E2041–E2041
- **Measurement Precision in the Optimization of Cardiac Resynchronization Therapy** *CIRCULATION-HEART FAILURE*
Turcott, R. G., Witteles, R. M., Wang, P. J., Vagelos, R. H., Fowler, M. B., Ashley, E. A.
2010; 3 (3): 395-404
- **Rosiglitazone Increases Myocardial Glucose Metabolism in Insulin-Resistant Cardiomyopathy** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Kao, D. P., Witteles, R. M., Quon, A., Wu, J. C., Gambhir, S. S., Fowler, M. B.
2010; 55 (9): 926-927
- **Dyssynchrony Assessment with Tissue Doppler Imaging and Regional Volumetric Analysis by 3D Echocardiography Do Not Predict Long-Term Response to Cardiac Resynchronization Therapy.** *Cardiology research and practice*
Kuppahally, S. S., Fowler, M. B., Vagelos, R., Wang, P., Al-Ahmad, A., Hsia, H., Liang, D.
2010; 2011: 568918-?
- **Worsening of Left Ventricular End-Systolic Volume and Mitral Regurgitation without Increase in Left Ventricular Dyssynchrony on Acute Interruption of Cardiac Resynchronization Therapy** *ECHOCARDIOGRAPHY-A JOURNAL OF CARDIOVASCULAR ULTRASOUND AND ALLIED TECHNIQUES*
Kuppahally, S. S., Fowler, M. B., Vagelos, R., Wang, P., Al-Ahmad, A., Paloma, A., Liang, D.
2009; 26 (7): 759-765
- **Hypertension, heart failure, and beta-adrenergic blocking drugs** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Fowler, M. B.
2008; 52 (13): 1073-1075
- **Evaluation of Polymorphisms in Candidate Genes in the Dramatic Response to Pharmacologic Therapy of Heart Failure** *Basic Cardiovascular Sciences Conference*
Wheeler, M. T., Pavlovic, A., Dewey, F., Perez, M., Absher, D., Ho, M. Y., Cretti, E., Southwick, A., Rosenthal, D. N., Bernstein, D., Myers, R. M., Heidenreich, P. A., Fowler, et al
LIPPINCOTT WILLIAMS & WILKINS.2008: E64–E65
- **Overrepresentation of neuronal development pathways in heart failure patients who dramatically responded to pharmaceutical therapy** *12th Annual Scientific Meeting of the Heart-Failure-Society-of-America*
Pavlovic, A., Perez, M., Absher, D., Wheeler, M., Ho, M., Dewey, R., Cretti, L., Southwick, A., Rosenthal, D., Bernstein, D., Myers, R. M., Heidenreich, P., Fowler, et al
CHURCHILL LIVINGSTONE INC MEDICAL PUBLISHERS.2008: S41–S41
- **Insulin-resistant cardiomyopathy** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Witteles, R. M., Fowler, M. B.

2008; 51 (2): 93-102

- **Impact of nesiritide on renal function in patients with acute decompensated failure and pre-existing renal dysfunction - A randomized, double-blind, placebo-controlled clinical trial** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Witteles, R. M., Kao, D., Christopherson, D., Matsuda, K., Vagelos, R. H., Schreiber, D., Fowler, M. B.
2007; 50 (19): 1835-1840
- **Outcome in cardiac recipients of donor hearts with increased left ventricular wall thickness** *AMERICAN JOURNAL OF TRANSPLANTATION*
Kuppahally, S. S., Valantine, H. A., Weisshaar, D., Parekh, H., Hung, Y. Y., Haddad, F., Fowler, M., Vagelos, R., Perlroth, M. G., Robbins, R. C., Hunt, S. A.
2007; 7 (10): 2388-2395
- **beta-blocker dosing in community-based treatment of heart failure** *AMERICAN HEART JOURNAL*
Fowler, M. B., Lottes, S. R., Nelson, J. J., Lukas, M. A., Gilbert, E. M., Greenberg, B., Massie, B. M., Abraham, W. T., Franciosa, J. A.
2007; 153 (6): 1029-1036
- **Comparison of outcomes and usefulness of carvedilol across a spectrum of left ventricular ejection fractions in patients with heart failure in clinical practice** *AMERICAN JOURNAL OF CARDIOLOGY*
Massie, B. M., Nelson, J. J., Lukas, M. A., Greenberg, B., Fowler, M. B., Gilbert, E. M., Abraham, W. T., Lottes, S. R., Franciosa, J. A.
2007; 99 (9): 1263-1268
- **Why do we need to prevent right ventricular pacing?** *Progress in cardiovascular nursing*
Tsiperfal, A., Scheibly, K., Fowler, M. B., Chao, C.
2007; 22 (2): 108-109
- **The effect of gender on mortality or appropriate shock in patients with nonischemic cardiomyopathy who have implantable cardioverter-defibrillators** *PACE-PACING AND CLINICAL ELECTROPHYSIOLOGY*
Chen, H. A., Hsia, H. H., Vagelos, R., Fowler, M., Wang, P., Al-Ahmad, A.
2007; 30 (3): 390-394
- **Tolerability, safety, and efficacy of beta-blockade in black patients with heart failure in the community setting: insights from a large prospective beta-blocker registry.** *Congestive heart failure (Greenwich, Conn.)*
Abraham, W. T., Massie, B. M., Lukas, M. A., Lottes, S. R., Nelson, J. J., Fowler, M. B., Greenberg, B., Gilbert, E. M., Franciosa, J. A.
2007; 13 (1): 16-21
- **Emerging therapies for the management of decompensated heart failure - From bench to bedside** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
DeGoma, E. M., Vagelos, R. H., Fowler, M. B., Ashley, E. A.
2006; 48 (12): 2397-2409
- **Predictors of clinical outcomes in patients given carvedilol for heart failure** *AMERICAN JOURNAL OF CARDIOLOGY*
Greenberg, B., Lottes, S. R., Nelson, J. J., Lukas, M. A., Fowler, M. B., Massie, B. M., Abraham, W. T., Gilbert, E. M., Franciosa, J. A.
2006; 98 (11): 1480-1484
- **Heart failure in community practice: relationship to age and sex in a beta-blocker registry.** *Congestive heart failure (Greenwich, Conn.)*
Franciosa, J. A., Nelson, J. J., Lukas, M. A., Lottes, S. R., Massie, B. M., Fowler, M. B., Greenberg, B., Gilbert, E. M., Abraham, W. T.
2006; 12 (6): 317-323
- **Left ventricular dyssynchrony does not deteriorate acutely on cessation of cardiac resynchronization therapy in long term responders** *10th Annual Scientific Meeting of the Heart-Failure-Society-of-America*
Kuppahally, S., Fowler, M., Wang, P., Vagelos, R., Al-Ahmad, A., Paloma, A., Liang, D.
CHURCHILL LIVINGSTONE INC MEDICAL PUBLISHERS.2006: S76-S76
- **The effect of carvedilol on mortality risk in heart failure patients with diabetes: results of a meta-analysis** *CURRENT MEDICAL RESEARCH AND OPINION*
Bell, D. S., Lukas, M. A., Holdbrook, F. K., Fowler, M. B.
2006; 22 (2): 287-296
- **Cardiomyopathy of insulin resistance.** *Heart failure clinics*
Witteles, R. M., Fowler, M. B.
2006; 2 (1): 13-23

- **Are beta-blockers needed in patients receiving spironolactone for severe chronic heart failure? An analysis of the COPERNICUS study** *AMERICAN HEART JOURNAL*
Krum, H., Mohacsi, P., Katus, H. A., Tendera, M., Rouleau, J. L., Fowler, M. B., Coats, A. J., Roecker, E. B., Packer, M.
2006; 151 (1): 55-61
- **Evaluating the Cardiovascular Effects of the Thiazolidinediones and Their Place in the Management of Type 2 Diabetes in Relation to the Metabolic Syndrome** *METABOLIC SYNDROME AND RELATED DISORDERS*
Drexler, A. J., Nesto, R. W., Abrahamson, M. J., Bakris, G., Bell, D., Brunzell, J., Dandona, P., Davidson, J., Fonseca, V., Fowler, M., Frye, R., Giles, T., Haffner, et al
2005; 3 (2): 147-173
- **Impact of angiotensin-converting enzyme gene polymorphism on neurohormonal responses to high- versus low-dose enalapril in advanced heart failure** *AMERICAN HEART JOURNAL*
Tang, W. H., Vagelos, R. H., Yee, Y. G., Fowler, M. B.
2004; 148 (5): 889-894
- **Care management for low-risk patients with heart failure - A randomized, controlled trial** *ANNALS OF INTERNAL MEDICINE*
DeBusk, R. F., Miller, N. H., Parker, K. M., Bandura, A., Kraemer, H. C., Cher, D. J., West, J. A., Fowler, M. B., Greenwald, G.
2004; 141 (8): 606-613
- **beta-Blocker therapy for heart failure outside the clinical trial setting: Findings of a community-based registry** *AMERICAN HEART JOURNAL*
Franciosa, J. A., Massie, B. M., Lukas, M. A., Nelson, J. J., Lottes, S., Abraham, W. T., Fowler, M., Gilbert, E. M., Greenberg, B.
2004; 148 (4): 718-726
- **Prognostic impact of plasma N-terminal pro-brain natriuretic peptide in severe chronic congestive heart failure - A substudy of the carvedilol prospective randomized cumulative survival (COPERNICUS) trial** *CIRCULATION*
Hartmann, F., Packer, M., COATS, A. J., Fowler, M. B., Krum, H., Mohacsi, P., Rouleau, J. L., Tendera, M., Castaigne, A., Anker, S. D., Amann-Zalan, I., Hoersch, S., Katus, et al
2004; 110 (13): 1780-1786
- **Insulin resistance in idiopathic dilated cardiomyopathy - A possible etiologic link** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Witteles, R. M., Tang, W. H., Jamali, A. H., Chu, J. W., Reaven, G. M., Fowler, M. B.
2004; 44 (1): 78-81
- **Carvedilol prospective randomized cumulative survival (COPERNICUS) trial: Carvedilol in severe heart failure** *AMERICAN JOURNAL OF CARDIOLOGY*
Fowler, M. B.
2004; 93 (9A): 35B-39B
- **Influence of pretreatment systolic blood pressure on the effect of carvedilol in patients with severe chronic heart failure - The Carvedilol Prospective Randomized Cumulative Survival (COPERNICUS) Study** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Rouleau, J. L., Roecker, E. B., Tendera, M., Mohacsi, P., Krum, H., Katus, H. A., Fowler, M. B., COATS, A. J., Castaigne, A., Scherhag, A., Holcslaw, T. L., Packer, M.
2004; 43 (8): 1423-1429
- **NT-proBNP in severe chronic heart failure: rationale, design and preliminary results of the COPERNICUS NT-proBNP substudy** *EUROPEAN JOURNAL OF HEART FAILURE*
Hartmann, F., Packer, M., COATS, A. J., Fowler, M. B., Krum, H., Mohacsi, P., Rouleau, J. L., Tendera, M., Castaigne, A., Trawinski, J., Amann-Zalan, I., Hoersch, S., Katus, et al
2004; 6 (3): 343-350
- **How does myocardial inducible nitric oxide synthase gene expression relate to heart failure severity and to subsequent left ventricular reverse remodeling in patients with chronic heart failure?** *53rd Annual Scientific Session of the American-College-of-Cardiology*
Tang, W. H., LOPEZ, F., Yee, Y. G., Mullin, A., Zhang, Y., Fowler, M. B.
ELSEVIER SCIENCE INC.2004: 155A-155A
- **Influence of carvedilol therapy on myocardial expression of inducible nitric oxide synthase (NOS2) and the contractile response to beta-adrenergic inotropic stimulation in patients with dilated cardiomyopathy** *76th Annual Scientific Session of the American-Heart-Association*
Tang, W. H., LOPEZ, F., Lo, S. T., Yee, Y. G., Mullin, A., Zhang, Y., Fowler, M. B.

LIPPINCOTT WILLIAMS & WILKINS.2003: 412–12

- **Novel role for the potent endogenous inotrope apelin in human cardiac dysfunction** *CIRCULATION*
Chen, M. M., Ashley, E. A., Deng, D. X., Tsalenko, A., Deng, A., Tabibiazar, R., Ben-Dor, A., Fenster, B., Yang, E., King, J. Y., Fowler, M., Robbins, R., Johnson, et al
2003; 108 (12): 1432-1439
- **Reduced myocardial brain natriuretic peptide expression and collagen deposition following ventricular assist device support for heart failure** *52nd Annual Scientific Session of the American-College-of-Cardiology*
Fenster, B. E., Fowler, M. B., Yee, Y. G., Connolly, A., Tsao, P. S.
ELSEVIER SCIENCE INC.2003: 165A–165A
- **Physical activity patterns and exercise performance in cardiac transplant recipients.** *Journal of cardiopulmonary rehabilitation*
Myers, J., Gullestad, L., Bellin, D., Ross, H., Vagelos, R., Fowler, M.
2003; 23 (2): 100-106
- **Effects of initiating carvedilol in patients with severe chronic heart failure - Results from the COPERNICUS study** *JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION*
Krum, H., Roecker, E. B., Mohacsi, P., Rouleau, J. L., Tendra, M., COATS, A. J., Katus, H. A., Fowler, M. B., Packer, M.
2003; 289 (6): 712-718
- **Effect of carvedilol on the morbidity of patients with severe chronic heart failure - Results of the Carvedilol Prospective Randomized Cumulative Survival (COPERNICUS) study** *CIRCULATION*
Packer, M., Fowler, M. B., Roecker, E. B., COATS, A. J., Katus, H. A., Krum, H., Mohacsi, P., Rouleau, J. L., Tendra, M., Staiger, C., Holcslaw, T., Amann-Zalan, I., DeMets, et al
2002; 106 (17): 2194-2199
- **High prevalence of impaired glucose metabolism in patients with idiopathic dilated cardiomyopathy**
Jamali, A. H., Witteles, R. M., Tang, W. H., Chu, J. W., Reaven, G. M., Fowler, M. B.
ELSEVIER SCIENCE INC.2002: 181A–181A
- **Reverse remodeling following long-term carvedilol therapy is associated with improvement in survival: The Stanford Carvedilol Echocardiographic Registry**
Tang, W. H., Larson, M. S., Vagelos, R. H., Prikazsky, L., Hu, B. S., Fowler, M. B.
ELSEVIER SCIENCE INC.2002: 141A–141A
- **Neurohormonal and clinical responses to high- versus low-dose enalapril therapy in chronic heart failure** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Tang, W. H., Vagelos, R. H., Yee, Y. G., Benedict, C. R., Willson, K., Liss, C. L., Labelle, P., Fowler, M. B.
2002; 39 (1): 70-78
- **Beta-adrenergic blocking drugs in severe heart failure.** *Reviews in cardiovascular medicine*
Fowler, M.
2002; 3: S20-6
- **Coreg (R) Heart Failure Registry (COHERE): Characteristics of participating physicians, their patients, and dose-titration experience.**
Franciosa, J. A., Abraham, W. T., Fowler, M. B., Gilbert, E. M., Greenberg, B. H., Massie, B. M., Lukas, M. A., Nelson, J. J.
LIPPINCOTT WILLIAMS & WILKINS.2001: 801–
- **Effect of carvedilol on frequency and severity of hospitalization in severe chronic heart failure: Results of the COPERNICUS study**
Fowler, M. B., O'Connor, C. M., Carson, P., Tendra, M., Katus, H. A., Krum, H., Mohacsi, P., Coats, A. J., Rouleau, J. L., Roecker, E. B., Amann-Zalan, I., Holsclaw, T., Packer, et al
LIPPINCOTT WILLIAMS & WILKINS.2001: 753–54
- **Nuggets, pearls, and vignettes of master heart failure clinicians. Part 1--the medical history.** *Congestive heart failure (Greenwich, Conn.)*
Leier, C. V., Silver, M. A., Massie, B. M., Young, J. B., Fowler, M. B., Ventura, H. O., Hershberger, R. E.
2001; 7 (5): 245-249
- **Effect of carvedilol on survival in severe chronic heart failure.** *NEW ENGLAND JOURNAL OF MEDICINE*
Packer, M., COATS, A. J., Fowler, M. B., Katus, H. A., Krum, H., Mohacsi, P., Rouleau, J. L., Tendra, M., Castaigne, A., Roecker, E. B., Schultz, M. K., DeMets, D. L.

2001; 344 (22): 1651-1658

- **Race and the response to adrenergic blockade with carvedilol in patients with chronic heart failure.** *NEW ENGLAND JOURNAL OF MEDICINE*
Yancy, C. W., Fowler, M. B., Colucci, W. S., Gilbert, E. M., Bristow, M. R., Cohn, J. N., Lukas, M. A., Young, S. T., Packer, M.
2001; 344 (18): 1358-1365
- **Influence of carvedilol on hospitalizations in heart failure: incidence, resource utilization and costs. U.S. Carvedilol Heart Failure Study Group.** *Journal of the American College of Cardiology*
Fowler, M. B., Vera-Llonch, M., Oster, G., Bristow, M. R., Cohn, J. N., Colucci, W. S., Gilbert, E. M., Lukas, M. A., Lacey, M. J., Richner, R., Young, S. T., Packer, M.
2001; 37 (6): 1692-1699
- **Influence of carvedilol on hospitalizations in heart failure: Incidence, resource utilization and costs** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Fowler, M. B., Vera-Llonch, N., Oster, G., Bristow, M. R., Cohn, J. N., Colucci, W. S., Gilbert, E. M., Lukas, M. A., Lacey, M. J., Richner, R., Young, S. T., Packer, M.
2001; 37 (6): 1692-1699
- **The role of angiotensin receptor blockers in the management of chronic heart failure** *ARCHIVES OF INTERNAL MEDICINE*
Jamali, A. H., Tang, W. H., Khot, U. N., Fowler, M. B.
2001; 161 (5): 667-672
- **Rationale, design, and methods for a Coreg (Carvedilol) heart failure registry (COHERE)** *JOURNAL OF CARDIAC FAILURE*
Franciosa, J. A., Abraham, W. T., Fowler, M., Gilbert, E. M., Greenberg, B., Massie, B. M., Chen, T., Lukas, M. A., Nelson, J. J.
2000; 6 (3): 264-271
- **Baseline clinical parameters do not predict left ventricular ejection fraction improvement**
Tang, W. H., Khot, U. N., Larson, M. S., Prikazsky, L., Hu, B. S., Tan, J. L., Fowler, M. B.
ELSEVIER SCIENCE INC.2000: 207A-207A
- **Cardiopulmonary exercise testing and prognosis in severe heart failure: 14 mL/kg/min revisited** *AMERICAN HEART JOURNAL*
Myers, J., Gullestad, L., Vagelos, R., Do, D., Bellin, D., Ross, H., Fowler, M. B.
2000; 139 (1): 78-84
- **Effect of high- versus low-dose angiotensin converting enzyme inhibition on cytokine levels in chronic heart failure** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Gullestad, L., Aukrust, P., Ueland, T., Espevik, T., Yee, G., Vagelos, R., Froland, S. S., Fowler, M.
1999; 34 (7): 2061-2067
- **A genetic locus for ventricular arrhythmia and dilated cardiomyopathy on chromosome 2**
Dreher, D., Zhu, X. L., Hoang, K. L., Tan, J. L., Vagelos, R. H., Hunt, S. A., Fowler, M. B., McNally, E. M.
LIPPINCOTT WILLIAMS & WILKINS.1999: 217-17
- **Ventricular arrhythmia and dilated cardiomyopathy is linked to chromosome 2.**
Zhu, X., Dreher, D., Hoang, K., Tan, J., Hunt, S., Vagelos, R. H., Fowler, M., McNally, E. M.
CELL PRESS.1999: A455-A455
- **The influence of beta-adrenergic blocking drugs on morbidity and mortality in heart failure** *JOURNAL OF CARDIOVASCULAR RISK*
Fowler, M. B.
1999; 6 (3): 141-144
- **Cost effectiveness of carvedilol for heart failure** *AMERICAN JOURNAL OF CARDIOLOGY*
Delea, T. E., Vera-Llonch, M., Richner, R. E., Fowler, M. B., Oster, G.
1999; 83 (6): 890-896
- **Spontaneous postpartum coronary dissection** *CIRCULATION*
Lee, F. H., Yeung, A. C., Fowler, M. B., Fitzgerald, P. J.
1999; 99 (5): 721-721
- **beta-blockers in heart failure - Do they improve the quality as well as the quantity of life?** *Satellite Symposium on Health Economics and Quality of Life Issues in Heart Failure, at the XIXth Congress of the European-Society-of-Cardiology*

Fowler, M. B.

OXFORD UNIV PRESS.1998: P17–P25

- **Relationship between tissue and circulating levels of angiotensin converting enzyme with high and low dose enalapril therapy in heart failure**
Fowler, M. B., Yee, Y. G., Vagelos, R. H., Willson, K., Prikazsky, L., Mullin, A., Waldman-Boucher, M.
LIPPINCOTT WILLIAMS & WILKINS.1998: 854–54
- **Direct regulation of myosin by nitric oxide**
Tan, J. L., Heidecker, W., Cohen, J. D., Fowler, M. B., Spudich, J. A.
LIPPINCOTT WILLIAMS & WILKINS.1998: 682–82
- **Clinical, hemodynamic, and cardiopulmonary exercise test determinants of survival in patients referred for evaluation of heart failure** *ANNALS OF INTERNAL MEDICINE*
Myers, J., Gullestad, L., Vagelos, R., Do, D., Bellin, D., Ross, H., Fowler, M. B.
1998; 129 (4): 286-?
- **Neuropeptide Y receptor 1 (NPY-Y1) expression in human heart failure and heart transplantation** *JOURNAL OF THE AUTONOMIC NERVOUS SYSTEM*
Gullestad, L., Aass, H., Ross, H., Ueland, T., Geiran, O., KJEKSHUS, J., Simonsen, S., Fowler, M., Kobilka, B.
1998; 70 (1-2): 84-91
- **Angiotensin II receptor subtype AT(1) and AT(2) expression after heart transplantation** *CARDIOVASCULAR RESEARCH*
Gullestad, L., Haywood, G., Aass, H., Ross, H., Yee, G., Ueland, T., Geiran, O., KJEKSHUS, J., Simonsen, S., Bishopric, N., Fowler, M.
1998; 38 (2): 340-347
- **Use of assumed versus measured oxygen consumption for the determination of cardiac output using the Fick principle** *CATHETERIZATION AND CARDIOVASCULAR DIAGNOSIS*
Wolf, A., Pollman, M. J., Trindade, P. T., Fowler, M. B., Alderman, E. L.
1998; 43 (4): 372-380
- **Serial exercise testing and prognosis in selected patients considered for cardiac transplantation** *AMERICAN HEART JOURNAL*
Gullestad, L., Myers, J., Ross, H., Rickenbacher, P., Slauson, S., Bellin, D., Vagelos, R., Fowler, M.
1998; 135 (2): 221-229
- **Tolerability of carvedilol initiation in heart failure patients** *XIIIth World Congress of Cardiology*
Fowler, M., Colucci, W., Bristow, M., Packer, M., Gilbert, E., Cohn, J., Wu, B., Lukas, M., Hu, J., Kubo, S., Hershberger, R., Gottlieb, S., Pina, et al
MEDIMOND S R L.1998: 599–603
- **Effects of beta blockers on symptoms and functional capacity in heart failure.** *American journal of cardiology*
Fowler, M. B.
1997; 80 (11A): 55L-58L
- **Comparison of high versus low dose enalapril therapy on clinical outcomes and neuroendocrine activation in advanced heart failure**
Fowler, M. B., Vagelos, R. H., Schroeder, J. S., Benedict, C. R., Willson, K., Boucher, M., Mullin, A., Prikazsky, L. M., Liss, C. L., Labelle, P.
LIPPINCOTT WILLIAMS & WILKINS.1997: 105–
- **Safety and efficacy of carvedilol in severe heart failure. The U.S. Carvedilol Heart Failure Study Group.** *Journal of cardiac failure*
Cohn, J. N., Fowler, M. B., Bristow, M. R., Colucci, W. S., Gilbert, E. M., KINHAL, V., Krueger, S. K., LeJemtel, T., Narahara, K. A., Packer, M., Young, S. T., Holcslaw, T. L., Lukas, et al
1997; 3 (3): 173-179
- **Assessment of left ventricular wall motion abnormalities with the use of color kinesis: A valuable visual and training aid** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Lau, Y. S., Puryear, J. V., Gan, S. C., Fowler, M. B., Vagelos, R. H., Popp, R. L., Schnittger, I.
1997; 10 (6): 665-672
- **AT(1) and AT(2) angiotensin receptor gene expression in human heart failure** *CIRCULATION*
Haywood, G. A., Gullestad, L., Katsuya, T., Hutchinson, H. G., Pratt, R. E., Horiuchi, M., Fowler, M. B.
1997; 95 (5): 1201-1206

- **A comprehensive management system for heart failure improves clinical outcomes and reduces medical resource utilization** *AMERICAN JOURNAL OF CARDIOLOGY*
West, J. A., Miller, N. H., Parker, K. M., Senneca, D., Ghandour, G., Clark, M., Greenwald, G., Heller, R. S., Fowler, M. B., DeBusk, R. F.
1997; 79 (1): 58-63
- **Carvedilol produces dose-related improvements in left ventricular function and survival in subjects with chronic heart failure** *CIRCULATION*
Bristow, M. R., Gilbert, E. M., Abraham, W. T., Adams, K. F., Fowler, M. B., Hershberger, R. E., Kubo, S. H., Narahara, K. A., INGERSOLL, H., Krueger, S., Young, S., Shusterman, N.
1996; 94 (11): 2807-2816
- **Carvedilol inhibits clinical progression in patients with mild symptoms of heart failure** *CIRCULATION*
Colucci, W. S., Packer, M., Bristow, M. R., Gilbert, E. M., Cohn, J. N., Fowler, M. B., Krueger, S. K., Hershberger, R., Uretsky, B. F., Bowers, J. A., SACKNERBERNSTEIN, J. D., Young, S. T., Holcslaw, et al
1996; 94 (11): 2800-2806
- **Exercise capacity of heart transplant recipients: The importance of chronotropic incompetence** *JOURNAL OF HEART AND LUNG TRANSPLANTATION*
Gullestad, L., Haywood, G., Ross, H., Bjornerheim, R., Geiran, O., KJEKSHUS, J., Simonsen, S., Fowler, M.
1996; 15 (11): 1075-1083
- **Effect of carvedilol on survival and hospitalization in patients with ischemic or nonischemic cardiomyopathy**
Bristow, M. R., Colucci, W. S., Fowler, M. B., Gilbert, E. M., Lukas, M. A., Young, S. T., Hirshberger, R., Adams, K., Kreuger, S., MELMAN, H., Liang, C. S.
LIPPINCOTT WILLIAMS & WILKINS.1996: 1968-68
- **Carvedilol without ACE inhibition in the treatment of patients with moderate to severe chronic heart failure**
Gilbert, E. M., Colucci, W. S., Fowler, M. B., Lukas, M. A., Young, S. T., Hirshberger, R., Adams, K., deMarchens, E., Kreuger, S., Karlsberg, R., Liang, C. S.
LIPPINCOTT WILLIAMS & WILKINS.1996: 3875-75
- **The effect of carvedilol on morbidity and mortality in patients with chronic heart failure** *NEW ENGLAND JOURNAL OF MEDICINE*
Packer, M., Bristow, M. R., Cohn, J. N., Colucci, W. S., Fowler, M. B., Gilbert, E. M., Shusterman, N. H.
1996; 334 (21): 1349-1355
- **Analysis of deaths in patients awaiting heart transplantation: Impact on patient selection criteria** *HEART*
Haywood, G. A., Rickenbacher, P. R., Trindade, P. T., Gullestad, L., Jiang, J. P., Schroeder, J. S., Vagelos, R., Oyer, P., Fowler, M. B.
1996; 75 (5): 455-462
- **Transplant candidates with severe left ventricular dysfunction managed with medical treatment: Characteristics and survival** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Rickenbacher, P. R., Trindade, P. T., Haywood, G. A., Vagelos, R. H., Schroeder, J. S., Willson, K., Prikazsky, L., Fowler, M. B.
1996; 27 (5): 1192-1197
- **Expression of inducible nitric oxide synthase in human heart failure** *CIRCULATION*
Haywood, G. A., Tsao, P. S., VONDERLEYEN, H. E., Mann, M. J., Kelling, P. J., Trindade, P. T., Lewis, N. P., Byrne, C. D., Rickenbacher, P. R., Bishopric, N. H., Cooke, J. P., McKenna, W. J., Fowler, et al
1996; 93 (6): 1087-1094
- **Induction of nitric oxide synthase in the human cardiac allograft is associated with contractile dysfunction of the left ventricle** *CIRCULATION*
Lewis, N. P., Tsao, P. S., Rickenbacher, P. R., Xue, C., Johns, R. A., Haywood, G. A., VONDERLEYEN, H., Trindade, P. T., Cooke, J. P., Hunt, S. A., Billingham, M. E., Valentine, H. A., Fowler, et al
1996; 93 (4): 720-729
- **The relationship of granzyme A and perforin expression to cardiac allograft rejection and dysfunction** *14th Annual Meeting of the American-Society-of-Transplant-Physicians*
Alpert, S., Lewis, N. P., Ross, H., Fowler, M., Valentine, H. A.
WILLIAMS & WILKINS.1995: 1478-85
- **GUIDELINES FOR THE EVALUATION AND MANAGEMENT OF HEART-FAILURE** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*

- Williams, J. F., Bristow, M. R., Fowler, M. B., Francis, G. S., Garson, A., Gersh, B. J., Hammer, D. F., Hlatky, M. A., Leier, C. V., Packer, M., Pitt, B., Ullyot, D. J., Wexler, et al
1995; 26 (5): 1376-1398
- **GUIDELINES FOR THE EVALUATION AND MANAGEMENT OF HEART-FAILURE - REPORT OF THE AMERICAN-COLLEGE-OF-CARDIOLOGY AMERICAN-HEART-ASSOCIATION TASK-FORCE ON PRACTICE GUIDELINES (COMMITTEE ON EVALUATION AND MANAGEMENT OF HEART-FAILURE) CIRCULATION**
Williams, J. F., Bristow, M. R., Fowler, M. B., Francis, G. S., Garson, A., Gersh, B. J., Hammer, D. F., Hlatky, M. A., Leier, C. V., Packer, M., Pitt, B., Ullyot, D. J., Wexler, et al
1995; 92 (9): 2764-2784
 - **Selecting candidates for cardiac transplantation. How to assess exclusion criteria and predict who will benefit. The Journal of critical illness**
Rickenbacher, P. R., Haywood, G., Fowler, M. B.
1995; 10 (3): 199-206
 - **Spontaneous reversibility of catecholamine-induced cardiotoxicity in rats. The American journal of cardiovascular pathology**
Deisher, T. A., Ginsburg, R., Fowler, M. B., Billingham, M. E., Bristow, M. R.
1995; 5 (1): 79-88
 - **INCIDENCE OF MYOCARDITIS IN PERIPARTUM CARDIOMYOPATHY AMERICAN JOURNAL OF CARDIOLOGY**
Rizeq, M. N., Rickenbacher, P. R., Fowler, M. B., Billingham, M. E.
1994; 74 (5): 474-477
 - **LONG-TERM OUTCOME AFTER HEART-TRANSPLANTATION FOR PERIPARTUM CARDIOMYOPATHY AMERICAN HEART JOURNAL**
Rickenbacher, P. R., Rizeq, M. N., Hunt, S. A., Billingham, M. E., Fowler, M. B.
1994; 127 (5): 1318-1323
 - **ABNORMALITIES OF PULMONARY-FUNCTION IN PATIENTS WITH CONGESTIVE-HEART-FAILURE, AND REVERSAL WITH IPRATROPIUM BROMIDE AMERICAN JOURNAL OF CARDIOLOGY**
Kindman, L. A., Vagelos, R. H., Willson, K., PRIKAZKY, L., Fowler, M.
1994; 73 (4): 258-262
 - **BENEFICIAL-EFFECTS OF METOPROLOL IN IDIOPATHIC DILATED CARDIOMYOPATHY LANCET**
Waagstein, F., Bristow, M. R., Swedberg, K., Camerini, F., Fowler, M. B., Silver, M. A., Gilbert, E. M., Johnson, M. R., GOSS, F. G., Hjalmarson, A.
1993; 342 (8885): 1441-1446
 - **PROTECTIVE EFFECT OF CLENTIAZEM AGAINST EPINEPHRINE-INDUCED CARDIAC INJURY IN RATS JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS**
Deisher, T. A., Narita, H., ZERA, P., Ginsburg, R., Bristow, M. R., Billingham, M. E., Fowler, M. B., Hoffman, B. B.
1993; 266 (1): 262-269
 - **Controlled trials with beta blockers in heart failure: metoprolol as the prototype. American journal of cardiology**
Fowler, M. B.
1993; 71 (9): 45C-53C
 - **Beta-blockers in heart failure: potential of carvedilol. Journal of human hypertension**
Fowler, M. B.
1993; 7: S62-7
 - **BETA-ADRENERGIC NEUROEFFECTOR ABNORMALITIES IN THE FAILING HUMAN HEART ARE PRODUCED BY LOCAL RATHER THAN SYSTEMIC MECHANISMS JOURNAL OF CLINICAL INVESTIGATION**
Bristow, M. R., Minobe, W., Rasmussen, R., Larrabee, P., SKERL, L., Klein, J. W., Anderson, F. L., Murray, J., Mestroni, L., Karwande, S. V., Fowler, M., Ginsburg, R.
1992; 89 (3): 803-815
 - **INFLUENCE OF PREOPERATIVE PULMONARY-ARTERY PRESSURE ON MORTALITY AFTER HEART-TRANSPLANTATION - TESTING OF POTENTIAL REVERSIBILITY OF PULMONARY-HYPERTENSION WITH NITROPRUSSIDE IS USEFUL IN DEFINING A HIGH-RISK GROUP JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY**
COSTARDJACKLE, A., Fowler, M. B.
1992; 19 (1): 48-54

- **The influence of preoperative patient characteristics on early and late survival following cardiac transplantation.** *Circulation*
Costard-Jäckle, A., Hill, I., Schroeder, J. S., Fowler, M. B.
1991; 84 (5): III329-37
- **THE INFLUENCE OF PREOPERATIVE PATIENT CHARACTERISTICS ON EARLY AND LATE SURVIVAL FOLLOWING CARDIAC TRANSPLANTATION** *CIRCULATION*
COSTARDJACKLE, A., Hill, I., Schroeder, J. S., Fowler, M. B.
1991; 84 (5): 329-337
- **BETA-BLOCKERS IN CARDIAC-FAILURE** *CURRENT OPINION IN CARDIOLOGY*
Fowler, M. B.
1991; 6 (3): 368-372
- **DECREASED CATECHOLAMINE SENSITIVITY AND UNCHANGED B-ADRENERGIC RECEPTOR DENSITY WITH XAMOTEROL, A PARTIAL B-AGONIST ANTAGONIST IN DILATED CARDIOMYOPATHY**
Fowler, M. B., Dibiasse, A., MCCRORY, S., Yee, Y. G.
LIPPINCOTT WILLIAMS & WILKINS.1990: 385-85
- **INFLUENCE OF PREOPERATIVE PATIENT CHARACTERISTICS ON EARLY AND LATE SURVIVAL FOLLOWING CARDIAC TRANSPLANTATION**
COSTARDJACKLE, A., Hill, I., Schroeder, J. S., Fowler, M. B.
LIPPINCOTT WILLIAMS & WILKINS.1990: 715-15
- **CARDIAC ADRENOCEPTORS IN THE FAILING HEART - EFFECT OF INTERVENTION** *SATELLITE SYMP TO THE EUROPEAN SOC OF CARDIOLOGY : THE ROLE OF THE ADRENERGIC SYSTEM IN HEART FAILURE*
Fowler, M. B.
W B SAUNDERS CO LTD.1990: 13-18
- **Selection of patients for cardiac transplantation.** *Cardiology clinics*
Vagelos, R., Fowler, M. B.
1990; 8 (1): 23-38
- **HEMODYNAMIC AND RENAL EFFECTS OF ATRIAL-NATRIURETIC-PEPTIDE IN CONGESTIVE HEART-FAILURE** *AMERICAN JOURNAL OF CARDIOLOGY*
Fifer, M. A., Molina, C. R., QUIROZ, A. C., Giles, T. D., Herrmann, H. C., DESCHEERDER, I. R., Clement, D. L., Kubo, S., Cody, R. J., Cohn, J. N., Fowler, M. B.
1990; 65 (3): 211-216
- **HEMODYNAMIC-EFFECTS OF HIGH-DOSE NALOXONE IN CONGESTIVE HEART-FAILURE** *AMERICAN JOURNAL OF CARDIOLOGY*
Kindman, L. A., Fowler, M. B.
1989; 64 (8): 542-544
- **INCREASED BETA-RECEPTOR DENSITY AND IMPROVED HEMODYNAMIC-RESPONSE TO CATECHOLAMINE STIMULATION DURING LONG-TERM METOPROLOL THERAPY IN HEART-FAILURE FROM DILATED CARDIOMYOPATHY** *CIRCULATION*
HEILBRUNN, S. M., Shah, P., Bristow, M. R., Valantine, H. A., Ginsburg, R., Fowler, M. B.
1989; 79 (3): 483-490
- **EFFECT OF PREOPERATIVE HEMODYNAMIC SUPPORT ON SURVIVAL AFTER CARDIAC TRANSPLANTATION** *CIRCULATION*
O'CONNELL, J. B., Renlund, D. G., Robinson, J. A., Fowler, M. B., Oyer, P. E., Pifarre, R., Grady, K. L., MULLIN, A. V., MENLOVE, R. L., Gay, W. A., Bristow, M. R.
1988; 78 (5): 78-82
- **Effect of preoperative hemodynamic support on survival after cardiac transplantation.** *Circulation*
O'Connell, J. B., Renlund, D. G., Robinson, J. A., Fowler, M. B., Oyer, P. E., Pifarré, R., Grady, K. L., MULLIN, A. V., MENLOVE, R. L., GAY, W. A.
1988; 78 (5): III78-82
- **HEMODYNAMIC, RENAL AND ENDOCRINE EFFECTS OF ATRIAL NATRIURETIC PEPTIDE INFUSION IN SEVERE HEART-FAILURE** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Molina, C. R., Fowler, M. B., MCCRORY, S., Peterson, C., Myers, B. D., Schroeder, J. S., Murad, F.
1988; 12 (1): 175-186

- **ORTHOTOPIC CARDIAC TRANSPLANTATION FOR UNIVENTRICULAR HEART** *ANNALS OF THORACIC SURGERY*
Macoviak, J. A., Baldwin, J. C., Ginsburg, R., Fowler, M., Valentine, H., Oyer, P. E., Stinson, E. B.
1988; 45 (1): 85-86
- **CHANGES IN DOPPLER ECHOCARDIOGRAPHIC INDEXES OF LEFT-VENTRICULAR FUNCTION AS POTENTIAL MARKERS OF ACUTE CARDIAC REJECTION** *CIRCULATION*
Valantine, H. A., Fowler, M. B., Hunt, S. A., NAASZ, C., Hatle, L. K., Billingham, M. E., Stinson, E. B., Popp, R. L.
1987; 76 (5): 86-92
- **POOR SURVIVAL OF PATIENTS WITH IDIOPATHIC CARDIOMYOPATHY CONSIDERED TOO WELL FOR TRANSPLANTATION** *AMERICAN JOURNAL OF MEDICINE*
Stevenson, L. W., Fowler, M. B., Schroeder, J. S., Stevenson, W. G., Dracup, K. A., FOND, V.
1987; 83 (5): 871-876
- **DOPPLER ECHO INDEXES OF LV-FILLING ASSOCIATED WITH IMPROVED HEMODYNAMICS FOLLOWING METOPROLOL THERAPY IN DILATED CARDIOMYOPATHY**
Valantine, H. A., Hatle, L., HEILBRUNN, S., Oldershaw, P., Popp, R. L., Fowler, M. B.
AMER HEART ASSOC.1987: 358-58
- **HEMODYNAMIC, RENAL, AND ENDOCRINE EFFECTS OF ATRIAL-NATRIURETIC-PEPTIDE IN SEVERE CONGESTIVE-HEART-FAILURE**
Molina, C. R., Fowler, M. B., Peterson, C. A., COSTARD, A., Myers, B. D., Murad, F.
SLACK INC.1987: A642-A642
- **HYPOXIC PULMONARY VASOCONSTRICTION PERSISTS IN THE HUMAN TRANSPLANTED LUNG** *CLINICAL SCIENCE*
Robin, E. D., Theodore, J., Burke, C. M., Oesterle, S. N., Fowler, M. B., Jamieson, S. W., Baldwin, J. C., Morris, A. J., Hunt, S. A., VANKESSEL, A., Stinson, E. B., Shumway, N. E.
1987; 72 (3): 283-287
- **DOPPLER ECHOCARDIOGRAPHIC INDEXES OF DIASTOLIC FUNCTION AS MARKERS OF ACUTE CARDIAC REJECTION** *TRANSPLANTATION PROCEEDINGS*
Valantine, H., Fowler, M., Hatle, L., Hunt, S., Billingham, M., STINSON, E., Popp, R.
1987; 19 (1): 2556-2559
- **CHANGES IN DOPPLER AND M-MODE ECHOCARDIOGRAPHIC INDEXES OF LEFT-VENTRICULAR FUNCTION DURING ACUTE CARDIAC ALLOGRAFT-REJECTION**
Valantine, H. A., Oldershaw, P. J., Fowler, M. B., Gibson, D. G., Hatle, L., Hunt, S. A., Billingham, M. E., Stinson, E. B., Popp, R. L.
BRITISH MED JOURNAL PUBL GROUP.1987: 86-86
- **Beta 1- and beta 2-adrenergic-receptor subpopulations in nonfailing and failing human ventricular myocardium: coupling of both receptor subtypes to muscle contraction and selective beta 1-receptor down-regulation in heart failure.** *Circulation research*
Bristow, M. R., Ginsburg, R., Umans, V., Fowler, M., Minobe, W., Rasmussen, R., ZERA, P., MENLOVE, R., Shah, P., Jamieson, S.
1986; 59 (3): 297-309