



## QUICK LINKS:

[about](#)[people](#)[- faculty](#)[- recent publications](#)[- courses](#)[- staff](#)[research](#)[events](#)[contacts](#)[news](#)[bme home](#)[pratt home](#)[duke home](#)

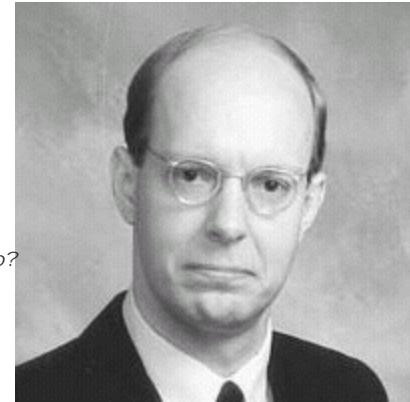
## INFORMATION FOR:

[undergrads](#)[grads](#)[industry](#)[employment](#)

## DONALD D GLOWER, PROFESSOR OF THORACIC SURGERY AND BIOMEDICAL ENGINEERING

### Contact Info:

Office Location: 4554 Hospital South  
 Office Phone: (919) 681-5789  
 Email: [\[REDACTED\]](#)  
 Address: [\[REDACTED\]](#)  
 Web: <http://surgery.duke.edu/modules/dukefaculty/viewDetails.php?d=glowe001&t=1>  
 Page: [d=glowe001&t=1](#)



### Education:

M.D., Johns Hopkins University School of Medicine, 1980

### Specialties:

Heart, Electrophysiology

### Representative Publications [\(More Publications\)](#)

- AD Pasipoularides, M Shu, MS Womack, A Shah, O Von Ramm, DD Glower, *RV functional imaging: 3-D echo-derived dynamic geometry and flow field simulations.*, American journal of physiology. Heart and circulatory physiology, United States, vol. 284 no. 1 (January, 2003), pp. H56-65 [abs].
- A Pasipoularides, M Shu, A Shah, S Silvestry, DD Glower, *Right ventricular diastolic function in canine models of pressure overload, volume overload, and ischemia.*, American journal of physiology. Heart and circulatory physiology, United States, vol. 283 no. 5 (November, 2002), pp. H2140-50 [abs].
- AD Pasipoularides, M Shu, A Shah, DD Glower, *Right ventricular diastolic relaxation in conscious dog models of pressure overload, volume overload, and ischemia.*, The Journal of thoracic and cardiovascular surgery, United States, vol. 124 no. 5 (November, 2002), pp. 964-72 [abs].
- WR Burfeind, DD Glower, RD Davis, KP Landolfo, JE Lowe, WG Wolfe, *Mitral surgery after prior cardiac operation: port-access versus sternotomy or thoracotomy.*, The Annals of thoracic surgery, United States, vol. 74 no. 4 (October, 2002), pp. S1323-5 [abs].
- AP Kypson, DD Glower, *Minimally invasive tricuspid operation using port access.*, The Annals of thoracic surgery, United States, vol. 74 no. 1 (July, 2002), pp. 43-5 [abs].
- GN Djaiani, DD Glower, JP Heneghan, M Stafford-Smith, *An unexpected intraoperative finding.*, Journal of cardiothoracic and vascular anesthesia, United States, vol. 16 no. 3 (June, 2002), pp. 382-3 .
- M Swaminathan, NP Debruijn, DD Glower, JP Mathew, *Unexpected transesophageal echocardiographic finding after septal myectomy.*, Journal of cardiothoracic and vascular anesthesia, United States, vol. 16 no. 3 (June, 2002), pp. 384-5 .
- AP Kypson, DD Glower, *Port-access approach for combined aortic and mitral valve surgery.*, The Annals of thoracic surgery, United States, vol. 73 no. 5 (May, 2002), pp. 1657-8 [abs].
- HF Tripp, DD Glower, JE Lowe, WG Wolfe, *Comparison of port access to sternotomy in tricuspid or mitral/tricuspid operations.*, The heart surgery forum, United States, vol. 5 no. 2 (2002), pp. 136-40 [abs].
- Pasipoularides A, Shu M, Shah A, Womack MS, Glower DD. Diastolic right ventricular filling vortex in normal and volume overload states. Am J Physiol Heart Circ Physiol. 2002 Dec 19;():. .*
- Pasipoularides AD, Shu M, Shah A, Glower DD. Right ventricular diastolic relaxation in conscious dog models of pressure overload, volume overload, and ischemia. JTCVS 124:964-72,2002. .*
- Swaminathan M, DeBruijn NP, Glower DD, Mathew JP. Unexpected echocardiographic finding after septal myectomy. J Cardiothor Vasc Anesth 16:384-5, 2002. .*
- SM Emani, AS Shah, DC White, DD Glower, WJ Koch, Right ventricular gene therapy with a beta-*

adrenergic receptor kinase inhibitor improves survival after pulmonary artery banding., The Annals of thoracic surgery, United States, vol. 72 no. 5 (November, 2001), pp. 1657-61 [abs].

YY Cen, DD Glower, K Landolfo, JE Lowe, RD Davis, WG Wolfe, C Pieper, B Peterson, *Comparison of survival after mitral valve replacement with biologic and mechanical valves in 1139 patients.*, The Journal of thoracic and cardiovascular surgery, United States, vol. 122 no. 3 (September, 2001), pp. 569-77 [abs].

DD Glower, M Stafford-Smith, FM Clements, *Cardiac surgery increases surgical complexity.*, Anesthesiology, United States, vol. 94 no. 4 (April, 2001), pp. 712 .

AS Shah, DC White, S Emani, AP Kypson, RE Lilly, K Wilson, DD Glower, RJ Lefkowitz, WJ Koch, *In vivo ventricular gene delivery of a beta-adrenergic receptor kinase inhibitor to the failing heart reverses cardiac dysfunction.*, Circulation, United States, vol. 103 no. 9 (March, 2001), pp. 1311-6 [abs].

DD Glower, LC Siegel, AC Galloway, G Ribakove, E Grossi, N Robinson, WH Ryan, S Colvin, R Shemin, *Predictors of operative time in multicenter port-access valve registry: institutional differences in learning.*, The heart surgery forum, United States, vol. 4 no. 1 (2001), pp. 40-6 [abs].

CA Milano, AS Shah, P Van Trigt, J Jagers, RD Davis, DD Glower, MB Higginbotham, SD Russell, KP Landolfo, *Evaluation of early postoperative results after bicaval versus standard cardiac transplantation and review of the literature.*, American heart journal, UNITED STATES, vol. 140 no. 5 (November, 2000), pp. 717-21 [abs].

AS Shah, DC White, O Tai, JA Hata, KH Wilson, A Pippen, AP Kypson, DD Glower, RJ Lefkowitz, WJ Koch, *Adenovirus-mediated genetic manipulation of the myocardial beta-adrenergic signaling system in transplanted hearts.*, The Journal of thoracic and cardiovascular surgery, UNITED STATES, vol. 120 no. 3 (September, 2000), pp. 581-8 [abs].

DD Glower, LC Siegel, KJ Frischmeyer, AC Galloway, GH Ribakove, EA Grossi, NB Robinson, WH Ryan, SB Colvin, *Predictors of outcome in a multicenter port-access valve registry.*, The Annals of thoracic surgery, UNITED STATES, vol. 70 no. 3 (September, 2000), pp. 1054-9 [abs].

AS Shah, BZ Atkins, JA Hata, O Tai, AP Kypson, RE Lilly, WJ Koch, DD Glower, *Early effects of right ventricular volume overload on ventricular performance and beta-adrenergic signaling.*, The Journal of thoracic and cardiovascular surgery, UNITED STATES, vol. 120 no. 2 (August, 2000), pp. 342-9 [abs].

BZ Atkins, SC Silvestry, RN Samy, AS Shah, DC Sabiston, DD Glower, *Calcitonin gene-related peptide enhances the recovery of contractile function in stunned myocardium.*, The Journal of thoracic and cardiovascular surgery, UNITED STATES, vol. 119 no. 6 (June, 2000), pp. 1246-54 [abs].

DD Glower, *Commentary*, J Thorac Cardiovasc Surg, UNITED STATES, vol. 119 no. 6 (June, 2000), pp. 1184 .

DC White, JA Hata, AS Shah, DD Glower, RJ Lefkowitz, WJ Koch, *Preservation of myocardial beta-adrenergic receptor signaling delays the development of heart failure after myocardial infarction.*, Proceedings of the National Academy of Sciences of the United States of America, UNITED STATES, vol. 97 no. 10 (May, 2000), pp. 5428-33 [abs].

GC Hughes, AS Shah, B Yin, M Shu, CL Donovan, DD Glower, JE Lowe, KP Landolfo, *Early postoperative changes in regional systolic and diastolic left ventricular function after transmyocardial laser revascularization: a comparison of holmium:YAG and CO2 lasers.*, Journal of the American College of Cardiology, UNITED STATES, vol. 35 no. 4 (March, 2000), pp. 1022-30 [abs].

S Gall, JE Lowe, WG Wolfe, HN Oldham, P Van Trigt, DD Glower, *Efficacy of the internal mammary artery in combined aortic valve replacement-coronary artery bypass grafting.*, The Annals of thoracic surgery, UNITED STATES, vol. 69 no. 2 (February, 2000), pp. 524-30 [abs].

AS Shah, RE Lilly, AP Kypson, O Tai, JA Hata, A Pippen, SC Silvestry, RJ Lefkowitz, DD Glower, WJ Koch, *Intracoronary adenovirus-mediated delivery and overexpression of the beta(2)-adrenergic receptor in the heart : prospects for molecular ventricular assistance.*, Circulation, UNITED STATES, vol. 101 no. 4 (February, 2000), pp. 408-14 [abs].

DD Glower, J Komtebedde, FM Clements, NP Debruijn, M Stafford-Smith, MF Newman, *Direct aortic cannulation for port-access mitral or coronary artery bypass grafting.*, The Annals of thoracic surgery, UNITED STATES, vol. 68 no. 5 (November, 1999), pp. 1878-80 [abs].

DD Glower, FM Clements, NP Debruijn, M Stafford-Smith, RD Davis, KP Landolfo, PK Smith, *Comparison of direct aortic and femoral cannulation for port-access cardiac operations.*, The Annals of thoracic surgery, UNITED STATES, vol. 68 no. 4 (October, 1999), pp. 1529-31 [abs].

BZ Atkins, SC Silvestry, JW Davis, JA Kisslo, DD Glower, *Means for load variation during echocardiographic assessment of the Frank-Starling relationship.*, Journal of the American Society of Echocardiography : official publication of the American Society of Echocardiography, UNITED STATES, vol. 12 no. 10 (October, 1999), pp. 792-800 [abs].

J Hochrein, JC Lucke, JK Harrison, TM Bashore, WG Wolfe, RH Jones, JE Lowe, WD White, DD Glower, *Mortality and need for reoperation in patients with mild-to-moderate asymptomatic aortic valve disease undergoing coronary artery bypass graft alone.*, American heart journal, UNITED STATES, vol. 138 no. 4 Pt 1 (October, 1999), pp. 791-7 [abs].

BZ Atkins, MT Hueman, J Meuchel, KA Hutcheson, DD Glower, DA Taylor, *Cellular cardiomyoplasty improves diastolic properties of injured heart.*, The Journal of surgical research, UNITED STATES, vol. 85 no. 2 (August, 1999), pp. 234-42 [abs].

JP Maurice, JA Hata, AS Shah, AS Shah, DC White, PH McDonald, PC Dolber, KH Wilson, RJ Lefkowitz, DD Glower, WJ Koch, *Enhancement of cardiac function after adenoviral-mediated in vivo intracoronary beta2-adrenergic receptor gene delivery.*, The Journal of clinical investigation, UNITED STATES, vol. 104 no. 1 (July, 1999), pp. 21-9 [abs].

JP Maurice, AS Shah, AP Kypson, JA Hata, DC White, DD Glower, WJ Koch, *Molecular beta-adrenergic signaling abnormalities in failing rabbit hearts after infarction.*, The American journal of physiology, UNITED STATES, vol. 276 no. 6 Pt 2 (June, 1999), pp. H1853-60 [abs].

DS Peterseim, YY Cen, S Cheruvu, K Landolfo, TM Bashore, JE Lowe, WG Wolfe, DD Glower, *Long-term outcome after biologic versus mechanical aortic valve replacement in 841 patients.*, The Journal of thoracic and cardiovascular surgery, UNITED STATES, vol. 117 no. 5 (May, 1999), pp. 890-7 [abs].

DD Glower, *Does pregnancy affect the durability of valvular bioprostheses?*, American heart journal, UNITED STATES, vol. 137 no. 4 Pt 1 (April, 1999), pp. 590-1 .

AC Galloway, RJ Shemin, DD Glower, JH Boyer, MA Groh, RE Kuntz, TA Burdon, GH Ribakove, BA Reitz, SB Colvin, *First report of the Port Access International Registry.*, The Annals of thoracic surgery, UNITED STATES, vol. 67 no. 1 (January, 1999), pp. 51-6; discussion 57-8 [abs].

BZ Atkins, CW Lewis, WE Kraus, KA Hutcheson, DD Glower, DA Taylor, *Intracardiac transplantation of skeletal myoblasts yields two populations of striated cells in situ.*, The Annals of thoracic surgery, UNITED STATES, vol. 67 no. 1 (January, 1999), pp. 124-9 [abs].

DD Glower, KP Landolfo, S Cheruvu, YY Cen, JK Harrison, TM Bashore, PK Smith, RH Jones, WG Wolfe, JE Lowe, *Determinants of 15-year outcome with 1,119 standard Carpentier-Edwards porcine valves.*, The Annals of thoracic surgery, UNITED STATES, vol. 66 no. 6 Suppl (December, 1998), pp. S44-8 [abs].

CW Lewis, BZ Atkins, KA Hutcheson, CT Gillen, MC Reedy, DD Glower, DA Taylor, *A load-independent in vivo model for evaluating therapeutic interventions in injured myocardium.*, The American journal of physiology, UNITED STATES, vol. 275 no. 5 Pt 2 (November, 1998), pp. H1834-44 [abs].

DD Glower, KP Landolfo, RD Davis, YY Cen, JK Harrison, TM Bashore, JE Lowe, WG Wolfe, *Comparison of open mitral commissurotomy with mitral valve replacement with or without chordal preservation in patients with mitral stenosis.*, Circulation, UNITED STATES, vol. 98 no. 19 Suppl (November, 1998), pp. II120-3 [abs].

DD Glower, KP Landolfo, F Clements, NP Debruijn, M Stafford-Smith, PK Smith, F Duhaylongsod, *Mitral valve operation via Port Access versus median sternotomy.*, European journal of cardiothoracic surgery : official journal of the European Association for Cardio-thoracic Surgery, NETHERLANDS, vol. 14 Suppl 1 (October, 1998), pp. S143-7 [abs].

DA Taylor, BZ Atkins, P Hungspreugs, TR Jones, MC Reedy, KA Hutcheson, DD Glower, WE Kraus, *Regenerating functional myocardium: improved performance after skeletal myoblast transplantation.*, Nature medicine, UNITED STATES, vol. 4 no. 8 (August, 1998), pp. 929-33 [abs].

CH Owen, DJ Esposito, JW Davis, DD Glower, *The effects of ventricular pacing on left ventricular geometry, function, myocardial oxygen consumption, and efficiency of contraction in conscious dogs.*, Pacing and clinical electrophysiology : PACE, UNITED STATES, vol. 21 no. 7 (July, 1998), pp. 1417-29 [abs].

SC Hendrickson, DD Glower, *A method for perfusion of the leg during cardiopulmonary bypass via femoral cannulation.*, The Annals of thoracic surgery, UNITED STATES, vol. 65 no. 6 (June, 1998), pp. 1807-8 [abs].

J Jagers, JK Harrison, TM Bashore, RD Davis, DD Glower, RM Ungerleider, *The Ross procedure: shorter hospital stay, decreased morbidity, and cost effective.*, The Annals of thoracic surgery, UNITED STATES, vol. 65 no. 6 (June, 1998), pp. 1553-7; discussion 1557-8 [abs].

HP Grocott, MS Smith, DD Glower, FM Clements, *Endovascular aortic balloon clamp malposition during minimally invasive cardiac surgery: detection by transcranial Doppler monitoring.*, Anesthesiology, UNITED STATES, vol. 88 no. 5 (May, 1998), pp. 1396-9 .

CM Watke, F Clements, DD Glower, MS Smith, *False-positive diagnosis of aortic dissection associated with femoral cardiopulmonary bypass.*, Anesthesiology, UNITED STATES, vol. 88 no. 4 (April, 1998), pp. 1119-21 .

AP Kypson, K Peppel, SA Akhter, RE Lilly, DD Glower, RJ Lefkowitz, WJ Koch, *Ex vivo adenovirus-mediated gene transfer to the adult rat heart.*, The Journal of thoracic and cardiovascular surgery, UNITED STATES, vol. 115 no. 3 (March, 1998), pp. 623-30 [abs].

SC Silvestry, RE Lilly, BZ Atkins, JC Lucke, CH Owen, US Marathe, RN Samy, J Davis, DD Glower, *Ventricular and myocardial efficiencies during acute aortic regurgitation in conscious dogs.*, Circulation, UNITED STATES, vol. 96 no. 9 Suppl (November, 1997), pp. II-108-14 [abs].

SA Akhter, CA Skaer, AP Kypson, PH McDonald, KC Peppel, DD Glower, RJ Lefkowitz, WJ Koch, *Restoration of beta-adrenergic signaling in failing cardiac ventricular myocytes via adenoviral-mediated gene transfer.*, Proceedings of the National Academy of Sciences of the United States of America, UNITED STATES, vol. 94 no. 22 (October, 1997), pp. 12100-5 [abs].

JC Lucke, RN Samy, BZ Atkins, SC Silvestry, JM Douglas, SJ Schwab, WG Wolfe, DD Glower, *Results of valve replacement with mechanical and biological prostheses in chronic renal dialysis patients.*, The Annals of thoracic surgery, UNITED STATES, vol. 64 no. 1 (July, 1997), pp. 129-32; discussion 132-3 [abs].

DA Taylor, SC Silvestry, SP Bishop, BH Annex, RE Lilly, DD Glower, WE Kraus, *Delivery of primary*

autologous skeletal myoblasts into rabbit heart by coronary infusion: a potential approach to myocardial repair., Proceedings of the Association of American Physicians, UNITED STATES, vol. 109 no. 3 (May, 1997), pp. 245-53 [abs].

JW Gaynor, MP Feneley, SA Gall, MA Savitt, SC Silvestry, JW Davis, JS Rankin, DD Glower, *Left ventricular adaptation to aortic regurgitation in conscious dogs.*, The Journal of thoracic and cardiovascular surgery, UNITED STATES, vol. 113 no. 1 (January, 1997), pp. 149-58 [abs].

US Marathe, RE Lilly, SC Silvestry, PR Schauer, JW Davis, TN Pappas, DD Glower, *Alterations in hemodynamics and left ventricular contractility during carbon dioxide pneumoperitoneum.*, Surgical endoscopy, GERMANY, vol. 10 no. 10 (October, 1996), pp. 974-8 [abs].

SC Silvestry, DA Taylor, RE Lilly, BZ Atkins, US Marathe, JW Davis, W Kraus, DD Glower, *The in vivo quantification of myocardial performance in rabbits: a model for evaluation of cardiac gene therapy.*, Journal of molecular and cellular cardiology, ENGLAND, vol. 28 no. 5 (May, 1996), pp. 815-23 [abs].

WR Jamieson, DC Miller, CW Akins, AI Munro, DD Glower, KA Moore, C Henderson, *Pregnancy and bioprostheses: influence on structural valve deterioration.*, The Annals of thoracic surgery, UNITED STATES, vol. 60 no. 2 Suppl (August, 1995), pp. S282-6; discussion S287 [abs].

ND Croughwell, WD White, LR Smith, RD Davis, DD Glower, JG Reves, MF Newman, *Jugular bulb saturation and mixed venous saturation during cardiopulmonary bypass.*, Journal of cardiac surgery, UNITED STATES, vol. 10 no. 4 Suppl (July, 1995), pp. 503-8 [abs].

DD Glower, WD White, LR Smith, WG Young, HN Oldham, WG Wolfe, JE Lowe, *In-hospital and long-term outcome after porcine tricuspid valve replacement.*, The Journal of thoracic and cardiovascular surgery, UNITED STATES, vol. 109 no. 5 (May, 1995), pp. 877-83; discussion 883-4 [abs].

MF Newman, ND Croughwell, JA Blumenthal, E Lowry, WD White, W Spillane, RD Davis, DD Glower, LR Smith, EP Mahanna, *Predictors of cognitive decline after cardiac operation.*, The Annals of thoracic surgery, UNITED STATES, vol. 59 no. 5 (May, 1995), pp. 1326-30 [abs].

Esposito DJ, Owen CH, Davis JW, Glower DD: *Acute effects of calcium on diastolic ventricular geometry in the failing heart.* Am J Physiol. .

Esposito DJ, Owen CH, Davis JW, Glower DD: *The effects of acute afterload changes on systolic ventricular function in conscious dogs with normal versus failing hearts.* Circ Res. .

Feneley MP, Lilly RE, Maier GW, Gaynor JW, Elberry JW, Savitt MA, Owen CH, Gall SA Jr, Davis JW, Rankin JS: *The virtual displacement model of cardiac energetics: comparison with systolic pressure-volume area as a predictor of oxygen consumption in conscious dogs.* Am J Physiol (In review). .

Gall SA Jr, Feneley MP, Lucke JC, Rankin JS, Lilly RE, Koutlas TC, Glower DD: *Myocardial wall volume as an independent determinant of ventricular performance.* Cardiovasc Res .

Gaynor JW, Feneley MP, Gall SA Jr, Savitt MA, Davis JW, Rankin JS, Glower DD: *Left ventricular adaptation to chronic aortic regurgitation.* Am J Physiol (In review). .

Glower DD and Lowe JE: *Left Ventricular Aneurysm.* In: Edmunds LH Jr, ed. *Cardiac Surgery in the Adult.* New York: McGraw-Hill, 1996 (In press). .

Glower DD, Berkowitz SD, Schwinn DA, Darling EM: *Coronary artery bypass grafting in a patient with heparin-induced platelet aggregation using low molecular weight heparin.* Ann Thorac Surg .

Glower DD: *Acquired aortic valve disease.* In: Sabiston DC Jr and Spencer FC, eds. *Surgery of the Chest.* Philadelphia: WB Saunders, 1995 (In press). .

Glower DD: *Anterior thoracotomy, Posterolateral thoracotomy, Transaxillary thoracotomy, Closure of aortic wounds, Pericardial window, Pericardiectomy for effusion, Pericardiectomy for chronic constrictive pericarditis.* In: Sabiston DC Jr, ed. *Atlas of Cardiothoracic Surgery.* Philadelphia: WB Saunders, 1995. .

Glower DD: *Bronchiectasis, Mitral and Tricuspid Valve Disease, Cardiopulmonary Resuscitation.* In: Sabiston DC Jr, ed. *Textbook of Surgery.* Philadelphia: WB Saunders Co, 1995 (In press). .

Glower DD, Elberry JR, Lucke JC, Feneley MP, Maier GW, Owen CH, Savitt MA, Gall SA Jr, Glower DD, Van Trigt P, Rankin JS: *The mechanical determinants of myocardial oxygen consumption in the conscious dog.* Am J Physiol 269:H609-H620, 1995. .

In preparation .

Jamieson WRE, Akins CW, Miller DC, Munro HI, Glower DD, Moore KA. *Pregnancy and bioprostheses: Influence on structural valve deterioration.* Proceedings VI International Symposium Cardiac Bioprostheses. (In press). .

Lowe JE and Glower DD: *Cardiac Resuscitation.* In: Edmunds LH Jr, ed. *Cardiac Surgery in the Adult.* New York McGraw-Hill, 1996 (In press). .

Lucke JC, Samy RN, Atkins BZ, Silvestry SC, Douglas JM, Schwab S, Wolfe WG, Glower DD: *Results of valve replacement with mechanical and biological prostheses in patients on chronic dialysis.* Ann Thorac Surg .

Robiolio PA, Heinle JS, Glower DD, Steenbergen C, Wilson JS, Hathorn JW, Harrison JK: *Constrictive pericarditis: A unique presentation of primary cardiac lymphoma.* Ann Int Med (In review). .

Uppal R, Craig D, Meyers C, Glower DD, Smith PK: *A shell subtraction model of right ventricular dynamic chamber volume in swine.* Am J Physiol (In review). .

Zipprich DA, Owen CH, Lewis CW, Gall SA Jr, Davis JW, Kisslo JA, Glower DD: *Noninvasive assessment of the Frank-Starling relationship using two-dimensional echocardiograph.* J Am Soc Echo (In press). .

CH Owen, RG Cummings, TL Sell, SJ Schwab, RH Jones, DD Glower, *Coronary artery bypass grafting in patients with dialysis-dependent renal failure.*, The Annals of thoracic surgery, UNITED STATES, vol. 58 no. 6 (December, 1994), pp. 1729-33 [abs].

EB Lieberman, JS Wilson, JK Harrison, KS Pieper, KB Kisslo, J Lowe, J Douglas, P Van Trigt, DD

Glower, CJ Davidson, Aortic valve replacement in adults after balloon aortic valvuloplasty., *Circulation*, UNITED STATES, vol. 90 no. 5 Pt 2 (November, 1994), pp. 11205-8 [abs].

KL Blair, AC Hatton, WD White, LR Smith, JE Lowe, WG Wolfe, WG Young, HN Oldham, JM Douglas, DD Glower, *Comparison of anticoagulation regimens after Carpentier-Edwards aortic or mitral valve replacement.*, *Circulation*, UNITED STATES, vol. 90 no. 5 Pt 2 (November, 1994), pp. 11214-9 [abs].

JC Lucke, JR Elbeery, TC Koutlas, SA Gall, TA D'Amico, GW Maier, JS Rankin, DD Glower, *Effects of cardiac glycosides on myocardial function and energetics in conscious dogs.*, *The American journal of physiology*, UNITED STATES, vol. 267 no. 5 Pt 2 (November, 1994), pp. H2042-9 [abs].

DB Mark, CL Nelson, RM Califf, FE Harrell, KL Lee, RH Jones, DF Fortin, RS Stack, DD Glower, LR Smith, *Continuing evolution of therapy for coronary artery disease. Initial results from the era of coronary angioplasty.*, *Circulation*, UNITED STATES, vol. 89 no. 5 (May, 1994), pp. 2015-25 [abs].

DD Glower, WD White, AC Hatton, LR Smith, WG Young, WG Wolfe, JE Lowe, *Determinants of reoperation after 960 valve replacements with Carpentier-Edwards prostheses.*, *The Journal of thoracic and cardiovascular surgery*, UNITED STATES, vol. 107 no. 2 (February, 1994), pp. 381-92; discussion 392-3 [abs].

JW Gaynor, MP Feneley, SA Gall, GW Maier, JA Kisslo, JW Davis, JS Rankin, DD Glower, *Measurement of left ventricular volume in normal and volume-overloaded canine hearts.*, *The American journal of physiology*, UNITED STATES, vol. 266 no. 1 Pt 2 (January, 1994), pp. H329-40 [abs].

Glower DD and Wolfe WG: *Management of dissecting aortic aneurysms.* In: Yao JST and Pearce WH, eds. *Aneurysms: New Findings and Treatment.* East Norwalk, CT: Appleton and Lange, 1994, 147-169. .

Glower DD, Reves JG: *Coronary artery bypass grafting for unstable angina or non-Q-wave myocardial infarction.* In: Califf RM, ed. *Acute Coronary Care in the Thrombolytic Era.* Philadelphia: WB Saunders, 1994, 117-124. .

Glower DD, White WD, Hatton AC, Smith LR, Young WG, Wolfe WG, Lowe JE: *Determinants of reoperation after 960 valve replacements with Carpentier-Edwards prostheses.* *J Thorac Cardiovasc Surg* 107:381-93, 1994. .

Glower, DD: *Aortic, Mitral and Tricuspid Valve Disease, and Hypertrophic Cardiac Myopathy.* In: Sabiston DCJr, ed. *Essentials of Surgery.* Philadelphia: WB Saunders, 1994, pp 729-737. .

Lucke JC, Elbeery JR, Koutlas TC, Gall SAJr, D'Amico TA, Maier GW, Glower DD, Rankin JS: *Effects of cardiac glycosides on myocardial function and energetics in the conscious dog.* *Am J Physiol* 267:H2042-H2049, 1994. .

Nho K, Glower D, Bredehoeft S, Shankar H, Shaw P, Abuchowski A: *PEG-Bovine hemoglobin: Safety in a canine dehydrated hypovolemic-hemorrhagic shock model.* In Chang TMS, ed. *Blood Substitutes*, 1994. .

Owen CH, Cummings RG, Sell TL, Schwab SJ, Glower DD. *Coronary artery bypass grafting in patients with end stage renal disease on maintenance dialysis therapy.* *Ann Thorac Surg* 58:1729-33, 1994. .

JM Cohen, DD Glower, JK Harrison, TM Bashore, WD White, LR Smith, JS Rankin, DC Sabiston, *Comparison of balloon valvuloplasty with operative treatment for mitral stenosis.*, *The Annals of thoracic surgery*, UNITED STATES, vol. 56 no. 6 (December, 1993), pp. 1254-62 [abs].

MA Savitt, GS Tyson, JR Elbeery, CH Owen, JW Davis, MP Feneley, DD Glower, JS Rankin, *Physiology of cardiac tamponade and paradoxical pulse in conscious dogs.*, *The American journal of physiology*, UNITED STATES, vol. 265 no. 6 Pt 2 (December, 1993), pp. H1996-2008 [abs].

RL Quigley, CA Milano, LR Smith, WD White, JS Rankin, DD Glower, *Prognosis and management of anterolateral myocardial infarction in patients with severe left main disease and cardiogenic shock. The left main shock syndrome.*, *Circulation*, UNITED STATES, vol. 88 no. 5 Pt 2 (November, 1993), pp. 1165-70 [abs].

CH Owen, CW Lewis, DA Zipprich, JW Davis, DC Sabiston, DD Glower, *Regional geometry and function during myocardial ischemia and recovery.*, *The Journal of surgical research*, UNITED STATES, vol. 54 no. 6 (June, 1993), pp. 545-57 [abs].

SA Gall, GW Maier, DD Glower, JW Gaynor, FR Cobb, DC Sabiston, JS Rankin, *Recovery of myocardial function after repetitive episodes of reversible ischemia.*, *The American journal of physiology*, UNITED STATES, vol. 264 no. 4 Pt 2 (April, 1993), pp. H1130-8 [abs].

CW Lewis, CH Owen, DA Zipprich, DC Sabiston, PK Smith, DD Glower, *The effects of local ventricular pacing on recovery from regional myocardial ischemia.*, *The Journal of surgical research*, UNITED STATES, vol. 54 no. 4 (April, 1993), pp. 360-7 [abs].

Cohen JM, Glower DD, Harrison JK, Bashore TM, Rankin JS: *Comparison of percutaneous balloon valvuloplasty and open commissurotomy in 90 consecutive patients with mitral stenosis.* *Ann Thorac Surg* 56:1254-62, 1993. .

Davis JW, Glower DD, Pilkington TC: *Utilization of regression analysis for enductance catheters: considerable improvement in volume estimation.* *Proc of IEEE Computers in Cardiology*, Durham NC, 1993. .

Dudley RA, Harrell FEJr, Smith LR, Mark DB, Califf RM, Pryor DB, Glower D, Lipscomb J, Hlatky MA: *Comparison of analytic models for estimating the effect of clinical factors on the cost of coronary artery bypass graft surgery.* *J Clin Epidemiol* 46:261-71, 1993. .

Owen CH, Esposito DJ, Davis JW, Glower DD: *Dynamic left ventricular geometry and function during atrial and ventricular pacing in conscious dogs.* *Surg Form* 64:288-91, 1993. .

Quigley RL, Milano CA, Smith LR, Rankin JS, Glower DD: *Prognosis and management of*

anterolateral myocardial infarction in patients with severe left main disease and cardiogenic shock. *Circulation* 88 (Suppl II):65-70, 1993. .

LH Muhlbaier, DB Pryor, JS Rankin, LR Smith, DB Mark, RH Jones, DD Glower, FE Harrell, KL Lee, RM Califf, *Observational comparison of event-free survival with medical and surgical therapy in patients with coronary artery disease. 20 years of follow-up.*, *Circulation*, UNITED STATES, vol. 86 no. 5 Suppl (November, 1992), pp. II198-204 [abs].

DD Glower, TD Christopher, CA Milano, WD White, LR Smith, RH Jones, DC Sabiston, *Performance status and outcome after coronary artery bypass grafting in persons aged 80 to 93 years.*, *The American journal of cardiology*, UNITED STATES, vol. 70 no. 6 (September, 1992), pp. 567-71 [abs].

MH Sketch, PJ Quigley, JA Perez, CJ Davidson, JB Muhlestein, JE Herndon, DD Glower, HR Phillips, RM Califf, RS Stack, *Angiographic follow-up after internal mammary artery graft angioplasty.*, *The American journal of cardiology*, UNITED STATES, vol. 70 no. 3 (August, 1992), pp. 401-3 .

DD Glower, TM Bashore, CE Spritzer, *Congenital aortic stenosis and patent ductus arteriosus in the adult.*, *The Annals of thoracic surgery*, UNITED STATES, vol. 54 no. 2 (August, 1992), pp. 368-70 [abs].

JR Elbeery, RF Williams, JS Rankin, DD Glower, DC Sabiston, P Van Trigt, *Effects of arterial hypertension on myocardial recovery after ischemic injury.*, *The American journal of physiology*, UNITED STATES, vol. 263 no. 2 Pt 2 (August, 1992), pp. H559-64 [abs].

NA Bickell, KS Pieper, KL Lee, DB Mark, DD Glower, DB Pryor, RM Califf, *Referral patterns for coronary artery disease treatment: gender bias or good clinical judgment?*, *Annals of internal medicine*, UNITED STATES, vol. 116 no. 10 (May, 1992), pp. 791-7 [abs].

FG Duhaylongsod, DD Glower, WG Wolfe, *Acute traumatic aortic aneurysm: the Duke experience from 1970 to 1990.*, *Journal of vascular surgery : official publication, the Society for Vascular Surgery [and] International Society for Cardiovascular Surgery, North American Chapter*, UNITED STATES, vol. 15 no. 2 (February, 1992), pp. 331-42; discussion 342-3 [abs].

DD Glower, RL Murrah, CO Olsen, JW Davis, JS Rankin, *Mechanical correlates of the third heart sound.*, *Journal of the American College of Cardiology*, UNITED STATES, vol. 19 no. 2 (February, 1992), pp. 450-7 [abs].

JJ Morris, LR Smith, RH Jones, DD Glower, PB Morris, LH Muhlbaier, JG Reves, JS Rankin, *Influence of diabetes and mammary artery grafting on survival after coronary bypass.*, *Circulation*, UNITED STATES, vol. 84 no. 5 Suppl (November, 1991), pp. III275-84 [abs].

KL Yun, DD Glower, DC Miller, JI Fann, RS Mitchell, WD White, JS Rankin, WG Wolfe, NE Shumway, *Aortic dissection resulting from tear of transverse arch: is concomitant arch repair warranted?*, *The Journal of thoracic and cardiovascular surgery*, UNITED STATES, vol. 102 no. 3 (September, 1991), pp. 355-68; discussion 368-70 [abs].

CO Olsen, DD Glower, KL Lee, PA McHale, JS Rankin, *Diastolic anisotropic properties of the left ventricle in the conscious dog.*, *Circulation research*, UNITED STATES, vol. 69 no. 3 (September, 1991), pp. 765-78 [abs].

DD Glower, RH Speier, WD White, LR Smith, JS Rankin, WG Wolfe, *Management and long-term outcome of aortic dissection.*, *Annals of surgery*, UNITED STATES, vol. 214 no. 1 (July, 1991), pp. 31-41 [abs].

JI Fann, DD Glower, DC Miller, KL Yun, JS Rankin, WD White, RL Smith, WG Wolfe, NE Shumway, *Preservation of aortic valve in type A aortic dissection complicated by aortic regurgitation.*, *The Journal of thoracic and cardiovascular surgery*, UNITED STATES, vol. 102 no. 1 (July, 1991), pp. 62-73; discussion 73-5 [abs].

JJ Morris, LR Smith, DD Glower, LH Muhlbaier, JG Reves, AS Wechsler, JS Rankin, *Clinical evaluation of single versus multiple mammary artery bypass.*, *Circulation*, UNITED STATES, vol. 82 no. 5 Suppl (November, 1990), pp. IV214-23 [abs].

DD Glower, JI Fann, RH Speier, L Morrison, WD White, LR Smith, JS Rankin, DC Miller, WG Wolfe, *Comparison of medical and surgical therapy for uncomplicated descending aortic dissection.*, *Circulation*, UNITED STATES, vol. 82 no. 5 Suppl (November, 1990), pp. IV39-46 [abs].

JS Kabas, JA Spratt, JW Davis, JS Rankin, DD Glower, *The effects of dopamine on myocardial functional recovery after reversible ischemic injury.*, *The Journal of thoracic and cardiovascular surgery*, UNITED STATES, vol. 100 no. 5 (November, 1990), pp. 715-23 [abs].

DD Glower, JM Douglas, JW Gaynor, RN Jones, HN Oldham, *Candida mediastinitis after a cardiac operation.*, *The Annals of thoracic surgery*, UNITED STATES, vol. 49 no. 1 (January, 1990), pp. 157-63 [abs].

JS Rankin, SA Livesey, LR Smith, KH Sheikh, P Van Trigt, NP de Bruijn, RM Califf, DD Glower, JA Kisslo, WG Wolfe, *Trends in the surgical treatment of ischemic mitral regurgitation: effects of mitral valve repair on hospital mortality.*, *Seminars in thoracic and cardiovascular surgery*, UNITED STATES, vol. 1 no. 2 (October, 1989), pp. 149-63 .

MP Feneley, CO Olsen, DD Glower, JS Rankin, *Effect of acutely increased right ventricular afterload on work output from the left ventricle in conscious dogs. Systolic ventricular interaction.*, *Circulation research*, UNITED STATES, vol. 65 no. 1 (July, 1989), pp. 135-45 [abs].

DD Glower, JA Spratt, JS Kabas, JW Davis, JS Rankin, *Quantification of regional myocardial dysfunction after acute ischemic injury.*, *The American journal of physiology*, UNITED STATES, vol. 255 no. 1 Pt 2 (July, 1988), pp. H85-93 [abs].

JR Newton, DD Glower, JA Wolfe, GS Tyson, JA Spratt, MP Fenely, JS Rankin, CO Olsen, A

physiologic comparison of external cardiac massage techniques., The Journal of thoracic and cardiovascular surgery, UNITED STATES, vol. 95 no. 5 (May, 1988), pp. 892-901 [abs].

JA Wolfe, GW Maier, JR Newton, DD Glower, GS Tyson, JA Spratt, JS Rankin, CO Olsen, *Physiologic determinants of coronary blood flow during external cardiac massage.*, The Journal of thoracic and cardiovascular surgery, UNITED STATES, vol. 95 no. 3 (March, 1988), pp. 523-32 [abs].

DD Glower, J Schaper, JS Kabas, HM Hoffmeister, W Schaper, JA Spratt, JW Davis, JS Rankin, *Relation between reversal of diastolic creep and recovery of systolic function after ischemic myocardial injury in conscious dogs.*, Circulation research, UNITED STATES, vol. 60 no. 6 (June, 1987), pp. 850-60 [abs].

JA Spratt, GS Tyson, DD Glower, JW Davis, LH Muhlbaier, CO Olsen, JS Rankin, *The end-systolic pressure-volume relationship in conscious dogs.*, Circulation, UNITED STATES, vol. 75 no. 6 (June, 1987), pp. 1295-309 [abs].

DD Glower, JA Spratt, JR Newton, JA Wolfe, JS Rankin, JL Swain, *Dissociation between early recovery of regional function and purine nucleotide content in postischaemic myocardium in the conscious dog.*, Cardiovascular research, ENGLAND, vol. 21 no. 5 (May, 1987), pp. 328-36 [abs].

GW Maier, JR Newton, JA Wolfe, GS Tyson, CO Olsen, DD Glower, JA Spratt, JW Davis, MP Feneley, JS Rankin, *The influence of manual chest compression rate on hemodynamic support during cardiac arrest: high-impulse cardiopulmonary resuscitation.*, Circulation, UNITED STATES, vol. 74 no. 6 Pt 2 (December, 1986), pp. IV51-9 [abs].

DD Glower, JA Spratt, ND Snow, JS Kabas, JW Davis, CO Olsen, GS Tyson, DC Sabiston, JS Rankin, *Linearity of the Frank-Starling relationship in the intact heart: the concept of preload recruitable stroke work.*, Circulation, UNITED STATES, vol. 71 no. 5 (May, 1985), pp. 994-1009 [abs].

CO Olsen, SJ Abert, DD Glower, JA Spratt, GS Tyson, JW Davis, JS Rankin, *A hermetically sealed cardiac dimension transducer for long-term animal implantation.*, The American journal of physiology, UNITED STATES, vol. 247 no. 5 Pt 2 (November, 1984), pp. H857-60 [abs].

JR Newton, DD Glower, JW Davis, JS Rankin, *Evaluation of suture techniques for mitral valve replacement.*, The Journal of thoracic and cardiovascular surgery, UNITED STATES, vol. 88 no. 2 (August, 1984), pp. 248-52 [abs].

RL Hamlin, DD Glower, RL Pimmel, *Genesis of QRS in the ruminant: graphic simulation.*, American journal of veterinary research, UNITED STATES, vol. 45 no. 5 (May, 1984), pp. 938-41 [abs].

JA Spratt, CO Olsen, GS Tyson, DD Glower, JW Davis, JS Rankin, *Experimental mitral regurgitation. Physiological effects of correction on left ventricular dynamics.*, The Journal of thoracic and cardiovascular surgery, UNITED STATES, vol. 86 no. 4 (October, 1983), pp. 479-89 [abs].

JT Flaherty, DD Glower, KR Kanter, TJ Gardner, WE Jacobus, *Use of an isolated heart model to test the utilization of substrates for inclusion in cardioplegic solutions.*, Advances in myocardiology, UNITED STATES, vol. 3 (1982), pp. 563-9 [abs].

KB Kanter, DD Glower, HV Schaff, TJ Gardner, *Mechanism of defective oxygen extraction following global ischemia.*, The Journal of surgical research, UNITED STATES, vol. 30 no. 5 (May, 1981), pp. 482-8 .

SK Lucas, KR Kanter, HV Schaff, EB Elmer, DD Glower, TJ Gardner, *Reduced oxygen extraction during reperfusion: a consequence of global ischemic arrest.*, The Journal of surgical research, UNITED STATES, vol. 28 no. 5 (May, 1980), pp. 434-41 .

Y Shim, A Pasipoularides, CA Straley, TG Hampton, PF Soto, CH Owen, JW Davis, DD Glower, *Arterial windkessel parameter estimation: a new time-domain method.*, Annals of biomedical engineering, UNITED STATES, vol. 22 no. 1 , pp. 66-77 [abs].

DA Zipprich, CH Owen, CW Lewis, SA Gall, JW Davis, JA Kisslo, DD Glower, *Assessment of the Frank-Starling relationship by two-dimensional echocardiography.*, Journal of the American Society of Echocardiography : official publication of the American Society of Echocardiography, UNITED STATES, vol. 9 no. 3 , pp. 231-40 [abs].

KA Hutcheson, BZ Atkins, MT Hueman, MB Hopkins, DD Glower, DA Taylor, *Comparison of benefits on myocardial performance of cellular cardiomyoplasty with skeletal myoblasts and fibroblasts.*, Cell transplantation, UNITED STATES, vol. 9 no. 3 , pp. 359-68 [abs].