



Richard Popp

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

 Curriculum Vitae available Online

CONTACT INFORMATION

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Bio

BIO

Richard Popp is Professor of Medicine (Emeritus 2005) at Stanford University. Dr. Popp is a clinical Cardiologist who focused his research on development of all forms of ultrasound with more than 300 scientific publications. Dr. Popp was Senior Associate Dean for Academic Affairs at Stanford from 1995-2000. He continues to teach in the Stanford Biodesign Innovation Program. He was Chair the Conflict of Interest Committee at the Medical School from 2000 to 2018. Dr. Popp was President of the American College of Cardiology, the American Society of Echocardiography and the Association of University Cardiologists. He is the previous Chairman of the American Board of Internal Medicine's Cardiovascular Diseases Subspecialty Board. He has received several special recognitions including The Rambam Award in Israel in 2012, the Gold Medal of the European Society of Cardiology in 2016 and the Albion Walter Hewlett Award of Stanford University in 2017.

Dr. Popp was an H-P fellow and Principal Medical Consultant to Hewlett-Packard Laboratories and Agilent Labs for many years. He was an advisor and consultant to Acuson, ATL, H-P Medical Ultrasound Division and Varian.

He was a member of The Angels' Forum from 1995 to 2001 and a Venture Partner at Advanced Technology Ventures from 2005 to 2012. He was on the Board of Sensant until its sale to Siemens and Ardian, Inc. until its sale to Medtronic, Inc. He is an Advisor to Lightstone Ventures. He is a Founder and past Chairman of the Board of Hospi Corporation. He is currently a Board member of Tangible Science. He Chairs the Medical Advisory Board for eXo Imaging and is Medical Advisor to Arterys, Vynca, and several start-ups from the Stanford Biodesign Program.

ACADEMIC APPOINTMENTS

- Professor Emeritus-Hourly, Medicine - Cardiovascular Medicine
- Member, Bio-X
- Member, Cardiovascular Institute

ADMINISTRATIVE APPOINTMENTS

- Senior Associate Dean for Academic Affairs, School of Medicine, (1995-2000)
- Head, Section on Ethics and Policy, Stanford Byers Center for Biodesign, (2000- present)
- Chair, School of Medicine Conflict of Interest Committee, (2001-2018)
- Faculty Mentor, Stanford Biodesign, (2001- present)
- Faculty Mentor, Clinical Excellence Research Center, Stanford University, (2012-2016)

HONORS AND AWARDS

- Doctorate, Honoris Causa, University of Lisbon, Portugal (1996)
- Richard L. Popp Master Teacher Award, American Society of Echocardiography (2001)
- Rambam Award, Rambam Medical Center, Haifa ,Israel (2012)
- Lifetime Honorary Medical Staff Appointment, Stanford Hospital and Clinics (2013)
- Gold Medal, European Society of Cardiology (2015)
- Albion Walter Hewlett Award, Stanford University School of Medicine (2017)

PROFESSIONAL EDUCATION

- M.D., Johns Hopkins School of Medicine , Medicine (1964)
- AB, Johns Hopkins University , Biological Sciences (1960)

LINKS

- Stanford Biodesign Website: <http://biodesign.stanford.edu/bdn/index.jsp>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Academic-Industrial relations; Ethics of invention.

Publications

PUBLICATIONS

- **Outcomes from a Postgraduate Biomedical Technology Innovation Training Program: The First 12 Years of Stanford Biodesign** *ANNALS OF BIOMEDICAL ENGINEERING*
Brinton, T. J., Kurihara, C. Q., Camarillo, D. B., Pietzsch, J. B., Gorodsky, J., Zenios, S. A., Doshi, R., Shen, C., Kumar, U. N., Mairal, A., Watkins, J., Popp, R. L., Wang, et al
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- **Assessment of left ventricular function by echocardiography: A technique in evolution** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Picard, M. H., Popp, R. L., Weyman, A. E.
2008; 21 (1): 14-21
- **Comparison of three-dimensional echocardiography to two-dimensional echocardiography and fluoroscopy for monitoring of endomyocardial biopsy** *AMERICAN JOURNAL OF CARDIOLOGY*
Amitai, M. E., Schnittger, I., Popp, R. L., Chow, J., Brown, P., Liang, D. H.
2007; 99 (6): 864-866
- **An outline for public registration of clinical trials evaluating medical devices** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Popp, R. L., Lorell, B. H., Stone, G. W., Laskey, W., Smith, J. J., Kaplan, A. V.
2006; 47 (8): 1518-1521
- **Innovation, journal reviewers, and journal editors - The game is worth the candle** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Popp, R. L.
2005; 46 (7): 1360-1361
- **Conflict of interest for the physician-inventor using a device in human subjects** *AMERICAN HEART JOURNAL*
Popp, R. L.
2005; 149 (1): 1-3

- **The role of the American College of Cardiology in promoting and maintaining the delivery of quality cardiovascular care in the future** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Klocke, F. J., Douglas, P. S., Nissen, S. E., Popp, R. L.
2000; 35 (5): 99B-101B
- **The role of the American College of Cardiology in promoting and maintaining the delivery of quality cardiovascular care in the future** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Klocke, F. J., Douglas, P. S., Nissen, S. E., Popp, R. L.
2000; 35 (4): 1100-1102
- **Stress echocardiography results in context** *EUROPEAN HEART JOURNAL*
Popp, R. L.
1999; 20 (20): 1450-1451
- **President's page: A time for celebration** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Popp, R. L.
1998; 31 (4): 890-891
- **President's page: Looking back ... looking forward** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Popp, R. L.
1998; 31 (2): 483-484
- **President's page: ACC's strategic plan - A road map for the future** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Popp, R. L.
1998; 31 (1): 238-239
- **Recommendations for training in performance and interpretation of stress echocardiography** *JOURNAL OF THE AMERICAN SOCIETY OF ECHOCARDIOGRAPHY*
Popp, R., Agatston, A., Armstrong, W., Nanda, N., Pearlman, A., Rakowski, H., Seward, J., Silverman, N., Smith, M., Stewart, W., Taylor, R., Thys, D., Davis, et al
1998; 11 (1): 95-96
- **Doppler evaluation of left ventricular filling in congestive heart failure** *EUROPEAN HEART JOURNAL*
Masuyama, T., Popp, R. L.
1997; 18 (10): 1548-1556
- **President's page: First, do no harm** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Popp, R. L.
1997; 29 (6): 1405-1406
- **28th Bethesda Conference. Task Force 3: Guidelines for credentialing practicing physicians.** *Journal of the American College of Cardiology*
Beller, G. A., WINTERS, W. L., Carver, J. R., King, S. B., McCallister, B. D., Popp, R. L.
1997; 29 (6): 1148-1162
- **Task force 3: Guidelines for credentialing practicing physicians** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
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1997; 29 (6): 1148-1162
- **A three-dimensional perspective** *EUROPEAN HEART JOURNAL*
Popp, R. L.
1996; 17 (10): 1456-1458
- **Coronary artery intimal thickening in the transplanted heart - An in vivo intracoronary ultrasound study of immunologic and metabolic risk factors** *TRANSPLANTATION*
Rickenbacher, P. R., Kemna, M. S., Pinto, F. J., Hunt, S. A., Alderman, E. L., Schroeder, J. S., Stinson, E. B., Popp, R. L., Chen, I., Reaven, G., Valentine, H. A.
1996; 61 (1): 46-53
- **TASK-FORCE-2 - ACADEMIC HEALTH CENTERS** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
King, S. B., Frye, R. L., Fuster, V., Garson, A., Gay, W. A., Popp, R. L.

1994; 24 (2): 290-295

- **ASSIGNMENT OF PATIENTS INTO THE CLASSIFICATION OF CARDIOMYOPATHIES** *CIRCULATION*
Keren, A., Popp, R. L.
1992; 86 (5): 1622-1633
- **INTRAVASCULAR ULTRASOUND IMAGING OF CORONARY-ARTERIES - IS 3 LAYERS THE NORM** *CIRCULATION*
Fitzgerald, P. J., STGOAR, F. G., Connolly, A. J., Pinto, F. J., Billingham, M. E., Popp, R. L., Yock, P. G.
1992; 86 (1): 154-158
- **CONTRIBUTORS TO CHARACTERISTIC MITRAL FLOW VELOCITY PATTERN IN CONGESTIVE-HEART-FAILURE - FROM CLINICAL OBSERVATIONS BACK TO EXPERIMENTAL VALIDATIONS** *SYMP ON CLINICAL EVALUATION OF CARDIAC PERFORMANCE, AT THE 55TH ANNUAL SCIENTIFIC SESSION OF THE JAPANESE CIRCULATION SOC*
Masuyama, T., Yamamoto, K., Uematsu, M., Tanouchi, J., KITABATAKE, A., STGOAR, F. G., Popp, R. L.
BLACKWELL PUBLISHING ASIA.1992: 740-49
- **TISSUE SIGNATURE - DISCUSSION-V** *AMERICAN JOURNAL OF CARDIOLOGY*
Feigenbaum, H., Kaul, S., Perez, J., Popp, R., SKORTON, D., Meltzer, R., Nanda, N., Gardin, J., Geiser, E.
1992; 69 (20): H117-H120
- **Guidelines for physician training in transesophageal echocardiography: recommendations of the American Society of Echocardiography Committee for Physician Training in Echocardiography.** *Journal of the American Society of Echocardiography*
Pearlman, A. S., Gardin, J. M., Martin, R. P., Parisi, A. F., Popp, R. L., Quinones, M. A., Stevenson, J. G., Schiller, N. B., Seward, J. B., Stewart, W. J.
1992; 5 (2): 187-194
- **CLINICAL COMPETENCE IN EXERCISE TESTING - A STATEMENT FOR PHYSICIANS FROM THE ACP/ACC/AHA TASK-FORCE ON CLINICAL PRIVILEGES IN CARDIOLOGY** *CIRCULATION*
Schlant, R. C., Friesinger, G. C., Leonard, J. J., Williams, S. V., Achord, J. L., Friesinger, G. C., Klocke, F. J., Leonard, J. J., Popp, R. L., Reynolds, W. A., RYAN, T. J., Schlant, R. C., Winters, et al
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- **CLINICAL COMPETENCE IN ADULT ECHOCARDIOGRAPHY - A STATEMENT FOR PHYSICIANS FROM THE ACP ACC AHA TASK-FORCE ON CLINICAL PRIVILEGES IN CARDIOLOGY** *CIRCULATION*
Popp, R. L., Winters, W. L.
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- **Echocardiographic and Doppler studies in hypertrophic cardiomyopathy.** *Cardiology clinics*
Sasson, Z., Rakowski, H., Wigle, E. D., Popp, R.
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- **MILDLY DILATED CONGESTIVE CARDIOMYOPATHY - USE OF PROSPECTIVE DIAGNOSTIC-CRITERIA AND DESCRIPTION OF THE CLINICAL COURSE WITHOUT HEART-TRANSPLANTATION** *CIRCULATION*
Keren, A., Gottlieb, S., Tzivoni, D., Stern, S., YAROM, R., Billingham, M. E., Popp, R. L.
1990; 81 (2): 506-517
- **Flow velocity acceleration in the left ventricle: a useful Doppler echocardiographic sign of hemodynamically significant mitral regurgitation.** *Journal of the American Society of Echocardiography*
Appleton, C. P., Hatle, L. K., Nellessen, U., Schnittger, I., Popp, R. L.
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- **TRANSESOPHAGEAL ECHOCARDIOGRAPHY - AN INTRODUCTION FOR ULTRASONOGRAPHERS** *JOURNAL OF DIAGNOSTIC MEDICAL SONOGRAPHY*
Tye, T. L., Nellessen, U., Schnittger, I., Popp, R.
1989; 5 (6): 316-321
- **THE HEMODYNAMIC-EFFECTS OF REPEATED BEDREST EXPOSURE** *AVIATION SPACE AND ENVIRONMENTAL MEDICINE*
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- **TASK FORCE 1 - THE DEFINITION AND ROLE OF ADULT CARDIOLOGISTS IN THE CHANGING SCENE OF CARDIOLOGY** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
RONAN, J. A., Knoebel, S. B., Conti, C. R., Flowers, N. C., Fox, A. C., Popp, R. L., VANDENBELT, R. J., Wickliffe, C. W., Winters, W. L.

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- **The definition and role of adult cardiologists in the changing scene of cardiology.** *Journal of the American College of Cardiology*
Ronan, J. A., Knoebel, S. B., Conti, C. R., Flowers, N. C., Fox, A. C., Popp, R. L., VANDENBELT, R. J., Wickliffe, C. W., WINTERS, W. L.
1988; 12 (3): 833-836
- **TRANS-ESOPHAGEAL DOPPLER ECHOCARDIOGRAPHY** *MAYO CLINIC PROCEEDINGS*
Schnittger, I., Popp, R. L.
1988; 63 (7): 726-728
- **METHODS FOR ESTIMATION OF STATISTICAL PROPERTIES OF ENVELOPES OF ULTRASONIC ECHOES FROM MYOCARDIUM** *IEEE TRANSACTIONS ON MEDICAL IMAGING*
Wear, K. A., Popp, R. L.
1987; 6 (4): 281-291
- **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.
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- **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
- **INTRAVENTRICULAR FLOW DURING ISOVOLUMIC RELAXATION - DESCRIPTION AND CHARACTERIZATION BY DOPPLER ECHOCARDIOGRAPHY** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Sasson, Z., Hatle, L., Appleton, C. P., Jewett, M., Alderman, E. L., Popp, R. L.
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- **GUIDELINES FOR OPTIMAL PHYSICIAN TRAINING IN ECHOCARDIOGRAPHY - RECOMMENDATIONS OF THE AMERICAN-SOCIETY-OF-ECHOCARDIOGRAPHY COMMITTEE FOR PHYSICIAN TRAINING IN ECHOCARDIOGRAPHY** *AMERICAN JOURNAL OF CARDIOLOGY*
Pearlman, A. S., Gardin, J. M., Martin, R. P., Parisi, A. F., Popp, R. L., Quinones, M. A., Stevenson, J. G.
1987; 60 (1): 158-163
- **WHEN SHOULD DOPPLER-DETERMINED VALVE AREA BE BETTER THAN THE GORLIN FORMULA - VARIATION IN HYDRAULIC CONSTANTS IN LOW FLOW STATES** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Segal, J., Lerner, D. J., Miller, D. C., Mitchell, R. S., Alderman, E. A., Popp, R. L.
1987; 9 (6): 1294-1305
- **THEORETICAL-ANALYSIS OF A TECHNIQUE FOR THE CHARACTERIZATION OF MYOCARDIUM CONTRACTION BASED UPON TEMPORAL CORRELATION OF ULTRASONIC ECHOES** *IEEE TRANSACTIONS ON ULTRASONICS FERROELECTRICS AND FREQUENCY CONTROL*
Wear, K. A., Popp, R. L.
1987; 34 (3): 368-375
- **INFLUENCE OF RECIPIENT ATRIAL CONTRACTION ON LEFT-VENTRICULAR FILLING DYNAMICS OF THE TRANSPLANTED HEART ASSESSED BY DOPPLER ECHOCARDIOGRAPHY** *AMERICAN JOURNAL OF CARDIOLOGY*
Valantine, H. A., Appleton, C. P., Hatle, L. K., Hunt, S. A., Stinson, E. B., Popp, R. L.
1987; 59 (12): 1159-1163
- **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
- **ECHOCARDIOGRAPHIC EVALUATION OF SPACE-SHUTTLE CREWMEMBERS** *JOURNAL OF APPLIED PHYSIOLOGY*
Bungo, M. W., GOLDWATER, D. J., Popp, R. L., Sandler, H.
1987; 62 (1): 278-283
- **PATTERNS AND TIMING OF DOPPLER-DETECTED INTRACAVITARY AND AORTIC FLOW IN HYPERTROPHIC CARDIOMYOPATHY** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Yock, P. G., Hatle, L., Popp, R. L.

- 1986; 8 (5): 1047-1058
- **Ultrasonic characterization of acute cardiac rejection from temporal evolution of echocardiograms.** *journal of heart transplantation*
Wear, K. A., Schnittger, I., DIRECTOR, B. A., Dawkins, K. D., Haverich, A., Billingham, M. E., Jamieson, S. W., Popp, R. L.
1986; 5 (6): 425-429
 - **DOPPLER ECHOCARDIOGRAPHIC MEASUREMENT OF AORTIC-VALVE AREA IN AORTIC-STENOSIS - A NONINVASIVE APPLICATION OF THE GORLIN FORMULA** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Teirstein, P., Yeager, M., Yock, P. G., Popp, R. L.
1986; 8 (5): 1059-1065
 - **ULTRASONIC CHARACTERIZATION OF CANINE MYOCARDIUM CONTRACTION** *IEEE TRANSACTIONS ON ULTRASONICS FERROELECTRICS AND FREQUENCY CONTROL*
Wear, K. A., SHOUP, T. A., Popp, R. L.
1986; 33 (4): 347-353
 - **TIMING OF ABNORMAL INTERVENTRICULAR SEPTAL MOTION AFTER CARDIOPULMONARY BYPASS OPERATIONS - LACK OF INJURY PROVED BY PREOPERATIVE, INTRAOPERATIVE, AND POSTOPERATIVE ECHOCARDIOGRAPHY** *JOURNAL OF THORACIC AND CARDIOVASCULAR SURGERY*
Schnittger, I., Keren, A., Yock, P. G., Allen, M. D., Modry, D. L., Zusman, D. R., Mitchell, R. S., Miller, D. C., Popp, R. L.
1986; 91 (4): 619-623
 - **COMPARISON OF DOPPLER-DERIVED PRESSURE-GRADIENT TO THAT DETERMINED AT CARDIAC-CATHETERIZATION IN ADULTS WITH AORTIC-VALVE STENOSIS - IMPLICATIONS FOR MANAGEMENT** *AMERICAN JOURNAL OF CARDIOLOGY*
Yeager, M., Yock, P. G., Popp, R. L.
1986; 57 (8): 644-648
 - **EFFECT OF VARIATION IN PQ INTERVAL ON PATTERNS OF ATRIOVENTRICULAR VALVE MOTION AND FLOW IN PATIENTS WITH NORMAL VENTRICULAR-FUNCTION** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
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 - **Beta blockade in the compensation for bed-rest cardiovascular deconditioning: physiologic and pharmacologic observations.** *American journal of cardiology*
Sandler, H., GOLDWATER, D. J., Popp, R. L., SPACCAVENTO, L., HARRISON, D. C.
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 - **BETA-BLOCKADE IN THE COMPENSATION FOR BED-REST CARDIOVASCULAR DECONDITIONING - PHYSIOLOGIC AND PHARMACOLOGIC OBSERVATIONS** *AMERICAN JOURNAL OF CARDIOLOGY*
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 - **DETECTION OF ENDOCARDITIS-ASSOCIATED PERIVALVULAR ABSCESSSES BY TWO-DIMENSIONAL ECHOCARDIOGRAPHY** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Ellis, S. G., Goldstein, J., Popp, R. L.
1985; 5 (3): 647-653
 - **NONINVASIVE EVALUATION OF INTRACARDIAC PRESSURES USING DOPPLER ULTRASOUND - A CASE-STUDY OF PANVALVULAR REGURGITATION** *CLINICAL CARDIOLOGY*
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1985; 8 (11): 565-571
 - **ECHOCARDIOGRAPHIC RECOGNITION OF PARASEPTAL STRUCTURES** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
Keren, A., Billingham, M. E., Popp, R. L.
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 - **MILDLY DILATED CONGESTIVE CARDIOMYOPATHY** *CIRCULATION*
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- Teirstein, P. S., Yock, P. G., Popp, R. L.
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- **ULTRASONIC TISSUE CHARACTERIZATION - DETECTION OF ACUTE MYOCARDIAL ISCHEMIA IN DOGS** *CIRCULATION*
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1984; 70 (4): 657-662
 - **A PHYSICIANS VIEW OF ECHOCARDIOGRAPHIC IMAGING** *HEWLETT-PACKARD JOURNAL*
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 - **TWO-DIMENSIONAL ECHOCARDIOGRAPHIC ASSESSMENT OF BIOPROSTHETIC VALVE DYSFUNCTION AND INFECTIVE ENDOCARDITIS** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*
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