CURRICULUM VITAE

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Date of Birth: May 11, 1965

Birthplace: Semarang, Central Java-Indonesia

Citizenship: US Citizen

Education:

9/1984 - 4/1991	M.D. (Udayana University- Bali, Indonesia)
5/1992 - 5/1993	M.P.H. School of Public Health, Boston University- Boston, MA

Career/Academic Appointments:

7/1993-6/1995	Instructor of Medicine, Research Fellow in Cardiology (Echocardiography) Tufts University-New England Medical Center, Boston, MA
7/1995-6/1998	Internship and Residency in Internal Medicine, University of Massachusetts Medical Center, Worcester, MA
7/1998-6/2001	Fellowship in Cardiology, University of Chicago, Chicago, IL
7/2001-6/2002	Fellowship in Echocardiography, University of Chicago, Chicago, IL

7/2002-6/2010	Assistant Professor of Medicine, Cardiology Department, Cardiovascular Imaging Lab, University of Chicago, Chicago, IL
7/2010-9/2010	Associate Professor of Medicine, Cardiology Department, Cardiovascular Imaging Lab, University of Chicago, Chicago, IL
10/2010-present	Associate Professor of Medicine, Cardiology Department, Cardiovascular Imaging (Echocardiography), Yale University, New Haven, CT

Administrative Positions:

10/2010-present	Associate Director of the Echolab, Director of Echolab Research Director of the Echo Corelab (Yale Cardiovascular Research Group)
10/2011- present	Director of the Echo Corelab (Yale Cardiovascular Research Group)
10/2012- present	Director of Yale Echolab (includes York St. Campus, St. Raphael's Hospital Campus, HVC offices)

Board Certification:

1995	Diplomate, ECFMG
2001	Diplomate, American Board of Internal Medicine (Recert. 2011)
2003	Diplomat, in Subspecialty of Cardiovascular Disease American Board of Internal Medicine (Recert. 2013)
2011	Testamur in Echocardiography (NBE 2011)
2014	Diplomat, in Subspecialty of Cardiovascular disease ABIM (Recert 2023)
2014	Diplomat, in Adult Comprehensive Echocardiograpy (Valid till 6/30/2021)

Professional Honors & Recognition

Regional

2008 Rory Childers Teaching Award (University of Chicago)
2011 Teaching Award (Yale University)

University (Udayana University)

Jan. 1985 Cum Laude (Preclinical Sciences)
May 1991 Graduated MD with highest honors

Grant History:

Sponsor	Title	Dates	Total
Medtronic	Multimodality Imagin of the aortic valve in Cadaver Hearts	2009-2010	$30,000
Siemens Medical Solutions	Yale: Structural Heart Disease Investigative Collaboration	2012-2015	$43,400
Cardiokinetix	PARACHUTE III	5/2011-7-2016	$357,524
	PARACHUTE IV	11/2012-20-2017	$1,498,565
	PARACHUTE CHINA	10/2014-9/2019	$93,691
	PARACHUTE COMMERCIAL	11/2013-10/2018	$31,395
	PARACHUTE IV ECHO SCREENING INITIATIVE	12/2015-12/2020	$27,533
Philips Healthcare	Professional Services Agreement CV SPIQ7 Project	2014-2015	$11,601
St. Jude	PORTICO	9/2013-9/2018	$1,012,115
Pheonix Cardiac	BACE	9/2013-9/2015	$169970
Admittance Technologies	RECHARGE	8/2014-07/2019	$15,697
Biocardia	CardiAmp	6/2015-5/2021	$881,493
Caisson	PRELUDE	6/2016-5/2021	$253,006
Gore	ASD 14-04 Trial	7/2016-7/2019	$738,770
Abiomed	Impella CP Echo	02/2017-01/2022	$33,075
Abiomed	cVAD	02/2018-01/2023	$71,358
Cedars-Sinai Medical Center	Cedars Sinai Heart Institute Alpha PAH	07/17-06/2022	$142,732
Conformal	CLAAS Early Feasibility	9/2018-8/2023	$153,698
GORE	PV1	10/2017-09/2022	$97,064
GORE	HRT	06/2018-05/2022	$222,180
St. Jude/ Abbott	Trifecta GT	01/2017-12/2022	$606,510
St Jude	Amplatzer PIVSD	05/2018-04/2023	$33,391

Ventrix	VentriGel	10/2014-09/2019	$42,134
Gore	MVRx Maveric	04/2018-06/2018	$43,576
CorMatrix	P-ECM	09/2015-08/2017	$45,821
CorMatrix	Tricuspid Valve Echo (ECM TVR)	10/2013-08/2016	$108,129
Siemens Medical Solutions	Yale: Structural Heart Disease Investigative Collaboration	2012-2015	$43,400.00
Philips Ultrasound	Philips Ultrasound Study	2018-2020	$50,000.00
Philips Ultrasound	Cardiology Ultrasound Study	2018-2021	$50,000.00
Siemens Medical Solutions	Evaluation of Sequoia Ultrasound System	2018-2022	$45,000.00
Toshiba America Medical Systems	3D Echo Study	2016-2018	$70,000.00

Lectures, Courses, Web-based Education:

2015 Siemens Workshops (August 28, September 19, and November 7, 2015, Cary, NC)
2016 Siemens Workshops (January, March, April, May, June, October, September, November 2016)
2017 Siemens Workshops (January, February, April, September, October 2017)
2018 Siemens Workshops (March, September, November 2017)

1. Introduction to 3DE and Clinical Applications
2. Siemens Knobology
3. Z6M and Matrix Probe Technology
4. 4D Acquisition and Display
5. eSie Valve tutorial, demonstration and hands-on cases

Echo Florida 2018 (Orlando, Florida)

1. 3D Workshop: Comprehensive (Oct. 6, 2018)
2. 3DE: Acquisition, Cropping and Display (Oct.7,2018)
3. Cases 3D: Applications in Practice (Oct.7,2018)
4. Coups, Goofs, and Things I have learned in the past year: Part 1 (Oct.7,2018)
5. Quantitation Errors in Clinical Echocardiography: My Pet Peeves (Oct.8,2018)
6. Are These Scallops Fresh? Interesting Mitral Valve Cases (Oct.9,2018)
7. What I've Learned from 3D Imaging of Heart Valve Disease (Oct.9,2018)

Echo Institute Jantung Negara 2018 (Kuala Lumpur, Malaysia)

8. 3D Echocardiography: The Present and The Future (Sept. 22, 2018)

9. Mitral regurgitation (Sept. 22, 2018)
10. Aortic Regurgitation (Sept. 22, 2018)
11. Live Scanning Sessions: Philips (Sept. 22, 2018)
12. The Best Cases From Around the World (Sept. 22, 2018)
13. Evaluation of Prosthetic Valves (Sept. 23, 2018)
14. TAVI: Who Should You Refer for TAVI? (Sept. 23, 2018)

Danbury Grand Rounds 2018: Essentials of AS and AR

7th Bali Cardiology Update (BAC-UP)

15. Acute Management of Valvular Heart Disease with Complications (July 6, 2018)
16. Structural Complication of AMI: Early Diagnosis Focus on Echocardiography (July 6, 2018)

2018 (invited) 29th Annual ASE Scientific Session (Nashville, TN)

17. 3D Assessment of LV and LA volumes (June 23, 2018)
18. Innovation in 4D Mitral Valve Quantification (June 23, 2018
19. Science and Technology Theater, June 23, 2018: Impact of 3DE: Changing Perspective
20. Science and Technology Theater, June 22, 2018: Double Trouble

27th Annual Scientific Meeting of the Indonesian Heart Association

21. Pre-Congress (9th INAECHO): Echocardiography Evaluation of the Tricuspid Valve
22. Application of 3D Echocardiography in Daily Practice

3rd Annual ASE-ASEAN Conference (March 22-24, 2018, Manila, Philippines)

23. Diagnostic Difficulties in Multivalvular Disease (March 22, 2018)
24. Prosthetic Valve Dysfunction(March 22, 2018)
25. Luncheon: Practical 3DE Tips and Tricks
26. TTE and TEE Assessment of Aortic Disease (March 23, 2018)
27. Evaluating and Scoring the Rheumatic MV in 2D and 3D (March 22, 2018)
28. Luncheon: Impact of 3DE: Changing Perspective
29. Imaging in Pulmonary Hypertension and Cor Pulmonale
30. TAVR 2018: Imaging Before, During and After

Pre-Conference Lecture at Philippine Heart Center:

31. How To Do 3D Imaging of the Mitral Valve?

2017 ASEAN Echo Brunei (Nov 3-4, 2017, Brunei Darrusalam)

32. Infective Endocarditis: The Weird and Wonderful (Nov 4, 2017)
33. Echocardiography tools “old and new” in the Evaluation of the Tricuspid Valve (Nov 4, 2017)
34. Role and Applications of 3D TEE in Everyday Practice (Nov 3, 2017)
35. Live Case in a Box in 3DE Special Session (Nov 3, 2017)

2017 (invited) 34th Advanced Echo Conference (Sept. 22-24, 2017, Huntington Beach, CA)

36. Aortic Regurgitation
37. The Spectrum of Valve Disease is Broad – Unusual Cases

38. Ischemic Heart Disease (Moderator)
39. Heart Failure and Ventricles with Low EF-Common and UnCommon Challenges
40. Just Talk

2017 (invited) ASE 2017 (June 6, 2017, Baltimore)

1. Complex TAVR

2016 (invited) ASEAN Federation of Cardiology Congress (October 13, 2016, Yangon, Myanmar)

1. Echocardiographic Assessment of Mitral Stenosis and Mitral Regurgitation-New Methods using 3D
2. Preoperative evaluation for Mitral Regurgitation: To Cut or to Clip

2016 (invited) 33rd Advanced Echo Conference (Sept. 25-17, 2017, Huntington Beach, CA)

2. Real-time 3DE and 3D Flow Imaging: Techniques, Knobology and Applications
3. Challenging Scenarios in Regurgitation
4. Tricuspid cases
5. Moderator for Prosthetic valves, Endocarditis and Unusual Valve Disorders session
6. Cases in Heart faiure
7. Echo in ICU scenarios
8. Unwelcome guests-Cases

2016 (invited) 22nd Phillipine Society of Echocaridiography

1. Dr. HB Calleja Professorial Lecture: 3 Dimensional Imaging (September 19 , 2016, Manila, Phillipines)
   - 2016 Siemens Workshop: Intro to 3DE: The Added Dimension (Med City, Manila, Phillipines)
   - 2016 Siemens Workshop Pre-Congress (Manila, Phillipines)

2016 Yale Internal Medicine Grand Rounds (August 18, 2016, New Haven, CT)

Is The Stethoscope Past Its Prime? Seeing is Believing

2016 (invited) C3 (July 30, Orlando, FL)

1. Mitral Valve Assessment in 2016: What Do We Need for a Successful Clip?

2016 (invited) ASE (June, 11-16, 2016, Seattle, WA)

1. Advanced Imaging: It Takes a Team: 3D What Does It Add? (June 12, 2016)
2. 3D Echo in Assessing MV Repairability (June 14, 2016)
3. 3D What Does It Add? (Session Chair, June 12, 2016)

2016 (invited) ACC (April 4-6, 2016, Chicago, IL)

1. Pregnant, 2nd Trimester, CHF, MV Disease..Uh-Oh (April 4, 2016)
2. Pathology and Mechanism of MR: Primary, Function…Prognosis? (April 5, 2016)

2015 Siemens Roadshow (June 4, 2015, Tampa, FL and October, 3, 2015, Ft. Lauderdale, FL)

2015 (invited) Tufts 8th Annual Heart Failure Conference (Nov. 13, 2015, Waltham, MA):

1. Non-Invasive Assesesment of Mitral Regurgitation in Heart Failure (Nov 13, 2015)

2015 (invited) ECHO ASE ASEAN (Oct. 23-25, 2015, Bangkok, Thailand)

1. Approaches for Assessing LV Function and their Pitfalls (Oct.23, 2015)
2. 3D and Strain Echo in Heart Failure (Oct. 25, 2015)
3. Assessment of ASDs and Closure Devices (Oct. 25, 2015)
4. 3D and Strain Live Imaging (Oct. 25, 2015)
5. Siemens Event (Oct. 23, 2015): Applying Innovations: Volume TEE in Daily Clinical Practice

2015 (invited) Echo Today and Tomorrow (June 22-26, St. Wolfgang, Austria):

1. 3DE-New Methodologic Innovations
2. Fungal Endocarditis
3. Artifacts
4. A New Paradigm in 4D Imaging (June 22, 2015)

2015 (invited) Multimodality CV Imaging Conference (New Haven, CT, Nov. 1, 2014)

1. 2D and 3D Echocardiography for Evaluation of Ischemic Mitral Regurgitation

2015 (invited) ASE Boston, MA (June 16, 2015)

1. True Volume Case Review (June 12, 2015)
2. Echo Contrast: See the Difference, Experience the Impact (June 14, 2015)
3. Moderator: Real-Time 3D Echo: Time to Change Our Perspective (Joint EACVI and ASE Symposium) (June 16, 2015)
4. Challenging Cases in Diastology and Pericardial Disease (Restriction) (June 16, 2015)
5. Lantheus Event: Operational Efficiency of Contrast Utilization (June 14, 2015)
6. Siemens Event: True Volume TEE (June 12, 2015)

2015 (invited) AIIMS Valve Workshop (March 23, 2015, New Delhi, India)

1. Echocardiographic evaluation of a patient with MR from a surgeon's perspective
2. Live Transmission: Post Repair TEE: What is a successful repair? When should we go back on pump
3. Anatomic and Echocardiographic Correlation

2014 (invited) ASE Portland, Oregon (June 21, 2014)

1. Incorporating 3D in Daily Clinical Practice: Ventricular Function
2. Operational Efficiency of Contrast Utilization
3. Three Dimensional Echo for Mitral Valve Morphology and Regurgitation
4.

2014 (invited) Echo Hawaii (January 2014)

1. 2D and 3D assessment of Systolic Function
2. 3DE in Valve Disease
3. Incremental Value of 3DTEE

4. Diastology Workshop
5. 3D and Strain Workshop

2013 (invited) EuroEcho Imaging 2013 (Istanbul, Turkey, December 12, 2013)

1. Right Ventricular Volumes and Ejection Fraction

2013 SDMS (invited) (Las Vegas, NV, October 11,2013)

1. Understanding the Mitral Valve: Not Just Noting the Presence
2. Sonographer's Scope of Practice: Role in the TEE lab and Beyond
3.

2013 (invited) St. Raphael's Grand Rounds (New Haven, CT, October 2013)

1. Hypertrophic Cardiomyopathy
2.

2013 (invited) Advanced Echo 2013 (Newport Beach, CA, September 27, 2013)

1. 3D and TTE: How to incorporate 3D TTE in a busy echo lab, Techniques, Knobology, varied approaches and diagnostic application. (Sep 27, 2013)
2. Role of 3-D in evaluation of the tricuspid valve and the right ventricle
3. Role of 3D echo in quantitation of mitral regurgitation
4. Spectrum of mitral stenosis: Case studies
5. Unknown challenging case studies using 2D/3D images

2013 (invited) Hoag Hospital Cardiology Grand Rounds (Newport Beach, CA)

1. 3D Echocardiography: Innovation in Practice (Sep. 26, 2013)

2013 (invited) Ramathibodi International Echo Symposium and Workshop: From Guidelines to Practice) (Bangkok, Thailand)

1. How to 3D TTE (Sep. 9, 2013)
2. How 3D TEE works (Sep. 9, 2013)
3. 2D and 3D assessment of MV complex (Sep. 10, 2013)
4. Role of Echo in Transcatheter Intervention (Sep. 10, 2013)

2013 (invited) 4th InaEcho (Jakarta, Indonesia)
Co-Director of the InaEcho Meeting

1. Recommendation for Image Acquisition and Display (Sep. 6, 2013)
2. Echo Examination for TAVI procedure (Sept 6, 2013)
3. Echo Reporting and Maintaining Quality (Sep 6, 2013)
4. Moderator: Buidling a good echolab (Sep 6, 2013)

2013 (invited) 3rd Kuala Lumpur Valve Summit (Kuala Lumpur, Malaysia)

1. How I assess Systolic function? (Aug 22, 2013)
2. Role of 3D in the assessment of LV and RV function (Aug 22, 2013)
3. Interesting Cases (Aug 22, 2013)
4. 3D Echo Anatomy of the Aortic Valve (Aug 23, 2013)
5. Ventricular remodeling after MV intervention (Aug 24, 2013)

2013 (invited) American Society of Echocardiography Scientific Sessions (Minneapolis, MN)

1. 3D Quantitation: When to Use
2. Basics of 3D Acquisition

2013 (invited) Grand Rounds Beth Isreal Hospital (BIDMC)

1. 3D Echocardiography: Innovation in Practice (April 25, 2013)

2012 (invited) Grand Rounds Rhode Island Hospital (Brown University):

1. 3D Echocardiography: Current Applications and Future Vision (Nov 2, 2012)

2012 (invited) American Society of Echocardiography Scientific Sessions (Washington DC)

1. 3D Applications for the LV and MV (July 1, 2012)
2. The Added Value of 3DE: An ASE/EAE Consensus (Joint EAE Session): 3D Congenital Heart Disease (July 1, 2012)
3. 3D ICE: Up Close and Three-Dimensional (Siemens) (July 2, 2012)
4. Prosthetic Valve: Illustrative Cases (MV perivalvular regurgitation) (July 3, 2012)

2011 (invited) American Society of Echocardiography Scientific Sessions (

1. Prosthethic Valve: Using the Guidelines
2. Session chair: Prosthetic Valve
3. Session chair: Extreme Echo (Optimal Image Management)

2011 (invited) Bridgeport Hospital Internal Medicine Grand Rounds (May 26, 2011)

1. 3DE: When, Why and How

2011 (invited) Norwalk Hospital Internal Medicine Grand Rounds (May 26, 2011)

2. 3DE: When, Why and How

2011 (invited) Multimodality Imaging in Heart Failure (May 5, 2011)

1. 3DE in heart failure

2011 (invited) Cardiovascular Symposium Program (June 4, 2011)

1. 3D Echo: Avatar in the Chest

2011 (invited) 17th Charlestown Symposium: Multi-modality Imaging (March13-16, 2011)

1. Mitral Valve Pathology: 3DE Datasets, Hands-on
2. 3DE quantifying mitral valve function: hands-on
3. 3DE LV Quantitation: Hands-on

2010 (invited) 9th Holistic Approach in Cardiovascular Diseases Symposium (Workshop Echocardiography) (June 30-July 1)

9. The Role of 3D Echo in the Management of Valve Disease
10. Assessment of Ventricular Function and Anatomy
11. Recent Advances in 3D: Current Issue and Clinical Application
12. Workshop MVQ

2010 (invited) Ramathibodi Echo Workshop(May 29-30, 2010)

1. Imaging Technologies in Heart Valve Disease
2. Role of Imaging Modality in Aortic Surgery
3. Future Direction of Echocardiography: What's Next for Heart Surgery

2010 (invited) CDI (May 28, 2010)

1. Echo 2D/3D TTE in valvular Heart Disease
2. Step by step in 3D/4D TTE (Live Demo)
3. Step by step in 2D and 3D/4D TEE (Live Demo)
4. Role of 2D/ 3D TEE in valvular heart disease
5. Roles of Echo in heart failure

2010 (invited) Inaecho 2010 (Jakarta, Indonesia)

(May 22, 2010) Echocardiographic Assessment for Right Ventricular Function
(May 23, 2010) Case: IOE TEE for MV Surgery MR How to Repair
(May 23, 2010) Evaluating the Mechanism of MR by Echocardiography

2010 (invited) 29th Advanced Echo Conference 2010 (April 18-21, 2010)-Huntington Beach, CA

(Apr 18, 2010) Role of 3D in Aortic Valve Disease
(Apr 18, 2010) Evolution of 3D Echocardiography: Is 4D for Real?
(Apr 18, 2010) 3D Assessment of Left Ventricular Systolic Function: Overall Clnical applicability
(Apr 18, 2010) Imaging Artifacts Using 3D and How to Avoid Them
(April 19, 2010) Role of 3D in Aortic Valve Disease
(April 19, 2010) How Does 3D Improve Quantitation of Mitral Stenosis?
(April 19, 2010) Live 3D Demonstration (3D TEE)

2010 (invited) University of Chicago Grand Rounds

3DE: Did the Child Ever Grow Up? Au Contraire

2010 (invited) Yale Grand Rounds (March 23, 2010)

3DE: Did the Child Ever Grow UP? Au Contraire

2009 (invited) Echo Singapore- Singapore

(Oct. 15, 2009) Quantitative Analysis of Left Ventricular Chamber Size and Function: Better for Diagnosis and Prognosis? What can 3D Echo Offer?
(Oct. 16, 2009) The Singapore Cardiac Society Echo Lecture
3-D and 4-D Echo: Did the Child Ever Grow Up? Au Contraire!
(Oct. 16,2009) Philips QLab Workshop

2009 (invited) Heart Valve Summit –Chicago, IL

(Sept 10, 09)Case Presentation for Mitral Valve Disease
(Sept 10, 09)Breakout session (Advanced Cardiac Imaging)
(Sept 11, 09)Case Presentation for Aortic Valve Disease

2009 (invited) ASE-Washington, DC

(June, 2009) Do You See What I See?-Rapid Fire from the OR
(June, 2009) Symposia: Clinical Decision-Making in Valvular Disease; When and How 3D is Helpful?

(June,2009) Plenary Session: 3D Echo in Valve Ds. 3D Echo in Valvular Regurgitation

2009 (invited) ACC Orlando

(March, 31,2009) Symposium 667: Advances in Non-Invasive Imaging-3D Echocardiography for Anatomy and Flow
(March 31, 2009) Symposium 669-5: Right Ventricular Function
(March 28, 2009) E3: Pre and Post MV Repair Leaflet Evaluation

2008 (invited) Charm City Echo-Philadelphia

(Sept,. 19, 2008) 3D Echocardiography: Concepts and Use in CRT

2008 (invited) Deborah Heart and Lung

(Sept. 18,2008) 3D Echocardiography: Current Technology and Applications

2008 (invited) Delaware Valley Echo Society Meeting (Philadelphia)

(Sept. 18,2008) The Use of 3D Imaging In the Assessment of Valve Disease-Pre and Intraoperatively

2008 (invited) Grand Rounds (Albert Einstien Hospital-Philadelphia)

(Sept. 17, 2008) From Slices to Volumes

2008 (invited) ASE 08 (Baltimore)

3D Echo of the Mitral Valve (iScan lecture)
iSEE My Heart (Mitral Valve Repair for Degenerative MR)

2008 (invited) ACC 2008 (Chicago, IL)

(Mar. 29, 2008) Echocardiography of the Right Ventricle
(Mar. 30, 2008) ACC Integrated Imaging 2008: Cardiac Resynchronization Therapy
(Mar. 31, 2008) Symposium: Applications of New Echocardiography Techniques: Three-Dimensional Assessment of Volumes
(Apr. 1, 2008) Meet the Experts: Role of Echocardiography in Management of Mitral Regurgitation

2007 (invited) AHA 2007 (Orlando, FL)

(Nov. 5, 2007) How to Use 3DE in Clinical Practice

2007 (Invited) International Valve Symposium (Huntington Beach, CA)

(Oct. 17,2007) Quantitation, Pathophysiology and Surgical Anatomy of MR: Real Time 3DE
(Oct. 17, 2007) Quantitation, Pathophysiology and Surgical Anatomy of MS: 3DE
(Oct. 18, 2007) Quantification of LV function: 2D vs. 3DE

2007 (Invited) ACC 2007 (New Orleans, LA)

(Mar. 25, 2007) Ischemic MR: Newer Insights
(Mar 27,2007) The Role of 3DE: Evaluation of LV size and function in the post MADIT Era

2006 (invited) San Francisco Electrophysiology Forum (San Francisco, CA)

(Oct. 7, 2007) Imaging Ventricular Dyssynchrony

2006 (Invited) Update and Review of Echocardiography 2006 (Boston)
A Case-Based Approach
- Workshop: Practical Echo Measurements: 3DE
- Case Studies: of systolic Function
- Practical application of RT3DE
- 3D cases-A New Way to Guide Intraoperative Management

2006 (Invited) Local ASE San Diego Echo Society Meeting
How to Incorporate 3DE in Daily Practice (Oct. 9, 2006)

2006 (Invited) Echocardiography for the Practitioner (Workshop)
Workshop 4: 3-D Echocardiography (UC Irvine-March 30, 2006)

2006 (Invited) ACC (Atlanta, GA)
1. Meet the Experts: 3D Echocardiography in a Clinical Laboratory

2005 (Invited) Advances in Echocardiography (St. Wolfgang, Austria- June 28-30, 2005)
- Differing Perspectives "3D Echo"
- 3D is Needed Today and It is Here to Stay! (Debate)
- Case presentation (unusual cases)

2005 (Invited) American Society of Echocardiography 2005 (Bosotn, MA)

2005 (Invited) Advances in Echo 2005 (ACC), 25th Annual Symposium
April 28-21, 2005, Huntington Beach, CA
- 3D Assessment of Valvular Anatomy
- 3D Echocardiography: Current Status and Future Prospects. Is it a Must Have Technology in Every EchoLab?
- Left Ventricular and Right Ventricular Assessment

2005 (Invited) ACC 2005 (Orlando, FL)
- RT3DE in Acute MI

2004 Advances in real-time 3D Echocardiography: Bothell and Andover. Symposiums sponsored by by Philips Medical Systems

2004 (Invited) Grand Rounds: Sentara Norfolk General Grand Rounds (May18, 2004)

2004 (Invited) ASE 2004 (San Diego, CA)
-RT3DE: My Best Cases.

2004 (Invited) Grand Rounds: Hoag Memorial Hospital Presbytarian and its Afflitates.
title:Clinical Applications of RT3DE: Show me the Data

2000 Advances in real-time 3D Echocardiography: Bothell and Andover. Symposiums sponsored by by Philips Medical Systems

2003 Phillips event (Tampa, Fl)
title:Live 3D Echocardiography: Current Status (June 2003)

2003 Phillips event (Andover, MA)
title:Live 3D Echocardiography: Current Status (June, 2003)

2003 Phillips event (Detroit, Michigan)
title:Live 3D Echocardiography: Current Status (June, 2003)

2003 (Invited) International Meeting of Echocardiography (France Soc. Echo-La Defense, France-June, 2003)

2003 (Invited) Brazilian Echo Society Meeting (Goiana, Brazil. May,2003)

2003 Phillips event (Omaha and Lincoln, NE)
title:Live 3D Echocardiography: Current Status (April 2003)

2003 Phillips event (St. Louis, MO)
title:Live 3D Echocardiography: Current Status (Jan 2003)

2001 (Invited) ASE 2001
title: Intraoperative 3DEcho (June 2001)

2000 (Invited) 13th ASEAN Cardiology Congress (Echocardiography Workshop): title:
3D Echocardiography Principles and Practical Application: Assessment of LV Function (June 2000)

PROFESSIONAL SERVICE

Professional Organizations
Connecticut ACC Chapter:
2010-2012 Committee Member

American Society of Echocardiography
2010 - 2017 International Relations Committee
2012 - 2015 Research Committee
2016 - present ASE Foundation
2017- present ASE Nominations Committee

Meeting Planning Participation
2008 Co-Chair First Live 3D TEE Conference
2013 Co-Director 4th InaEcho (Indonesian Society of Echocardiography)

Mentees:
Agnes Kim: Currently Director of EchoLab at UCONN
David Hur: Instructor of Internal Medicine (Cardiovascular Medicine – Yale)

Ben Lin:	Assistant Professor of Internal Medicine (Cardiovascular Medicine-Yale)
Priti Mehla:	Assistant Professor of Iinternal Medicine (Cardiovascular Medicine – Lenox Hill, Northwell Health)
Caroline Morbach:	Cardiologist at University of Wurzburg
Tawai Ngernsritrakul:	Cardiologist at Ramathibodi Hospital Thailand
Margret Bratanoff:	Cardiology Fellow Germany

BIBLIOGRAPHY:

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1. Pandian NG, Roelandt J, Nanda NC, Sugeng L, Cao QL, Azevedo J, Schwartz SL, Vannan MA, Ludomirski A, Marx G and et al. Dynamic three-dimensional echocardiography: methods and clinical potential. *Echocardiography*. 1994;11:237-59.
2. Delabays A, Pandian NG, Cao QL, Sugeng L, Marx G, Ludomirski A and Schwartz SL. Transthoracic real-time three-dimensional echocardiography using a fan-like scanning approach for data acquisition: methods, strengths, problems, and initial clinical experience. *Echocardiography*. 1995;12:49-59.
3. Delabays A, Sugeng L, Pandian NG, Hsu TL, Ho SJ, Chen CH, Marx G, Schwartz SL and Cao QL. Dynamic three-dimensional echocardiographic assessment of intracardiac blood flow jets. *Am J Cardiol*. 1995;76:1053-8.
4. Marx GR, Fulton DR, Pandian NG, Vogel M, Cao QL, Ludomirsky A, Delabays A, Sugeng L and Klas B. Delineation of site, relative size and dynamic geometry of atrial septal defects by real-time three-dimensional echocardiography. *J Am Coll Cardiol*. 1995;25:482-90.
5. Vannan MA, Cao QL, Pandian NG, Sugeng L, Schwartz SL and Dalton MN. Volumetric multiplexed transmission holography of the heart with echocardiographic data. *J Am Soc Echocardiogr*. 1995;8:567-75.
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Educational Material (CD ROM/ DVD)

1. Diagnostic Challenge: Adventures in Contrast Echocardiography. A CME-Certified Interactive CD-ROM Game Featuring Echocardiography Case Studies. Sponsored by Bristol-Myers Squibb Medical Imaging, Inc.

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