

# Stanford

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## Todd Brinton

Adjunct Professor, Medicine - Cardiovascular Medicine

### CONTACT INFORMATION

- **Alternate Contact**

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### Bio

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### ACADEMIC APPOINTMENTS

- Adjunct Professor, Medicine - Cardiovascular Medicine

### ADMINISTRATIVE APPOINTMENTS

- Adjunct Professor, Bioengineering, (2014- present)
- Executive Education Program Co-Director, Stanford Biodesign, (2013- present)
- Innovation Fellowship Program Director, Stanford Biodesign, (2007- present)
- Innovation Course Co-Director, Stanford Biodesign, (2006- present)

### PATENTS

- Chio, S.S., Brinton, T.J.. "United States Patent RE38,159 A Non-invasive Method and Apparatus for Diagnosing and Monitoring Aortic Valve Abnormalities, Such as Aortic Regurgitation", Pulse Metric, Inc., Jun 24, 2003

### LINKS

- Stanford Biodesign website: <http://biodesign.stanford.edu>

### Research & Scholarship

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### CLINICAL TRIALS

- FAME II - Fractional Flow Reserve (FFR) Guided Percutaneous Coronary Intervention (PCI) Plus Optimal Medical Treatment (OMT) Verses OMT, Not Recruiting
- TAXUS Libert# Post Approval Study, Not Recruiting

### Teaching

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### COURSES

#### 2016-17

- Biodesign Innovation: Concept Development and Implementation: BIOE 374B, ME 368B, MED 272B (Spr)
- Biodesign Innovation: Concept Development and Implementation: OIT 385 (Spr)

- Biodesign Innovation: Needs Finding and Concept Creation: BIOE 374A, ME 368A, MED 272A (Win)

#### 2015-16

- Biodesign Innovation: Concept Development and Implementation: BIOE 374B (Spr)
- Biodesign Innovation: Concept Development and Implementation: BIOE 375B (Spr)
- Biodesign Innovation: Concept Development and Implementation: ME 368B, MED 272B (Spr)
- Biodesign Innovation: Concept Development and Implementation: OIT 385 (Spr)
- Biodesign Innovation: Needs Finding and Concept Creation: BIOE 374A (Win)
- Biodesign Innovation: Needs Finding and Concept Creation: BIOE 375A (Win)
- Biodesign Innovation: Needs Finding and Concept Creation: ME 368A, MED 272A (Win)
- Biodesign Innovation: Needs Finding and Concept Creation: OIT 384 (Win)

## Publications

### PUBLICATIONS

- **Intravascular lithotripsy to treat a severely underexpanded coronary stent** *EUROINTERVENTION*  
Watkins, S., Good, R., Hill, J., Brinton, T. J., Oldroyd, K. G.  
2019; 15 (1): 124–25
- **Feasibility of Shockwave Coronary Intravascular Lithotripsy for the Treatment of Calcified Coronary Stenoses.** *Circulation*  
Brinton, T. J., Ali, Z. A., Hill, J. M., Meredith, I. T., Maehara, A., Illindala, U., Lansky, A., Gotberg, M., Van Mieghem, N. M., Whitbourn, R., Fajadet, J., Di Mario, C.  
2019; 139 (6): 834–36
- **Safety and Performance of Lithoplasty for Treatment of Calcified Peripheral Artery Lesions** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*  
Brodmann, M., Werner, M., Brinton, T. J., Illindala, U., Lansky, A., Jaff, M. R., Holden, A.  
2017; 70 (7): 908–10
- **Needs-Based Innovation in Interventional Radiology: The Biodesign Process** *TECHNIQUES IN VASCULAR AND INTERVENTIONAL RADIOLOGY*  
Steinberger, J. D., Denend, L., Azagury, D. E., Brinton, T. J., Makower, J., Yock, P. G.  
2017; 20 (2): 84–89
- **The Impact of Postgraduate Health Technology Innovation Training: Outcomes of the Stanford Biodesign Fellowship** *ANNALS OF BIOMEDICAL ENGINEERING*  
Wall, J., Hellman, E., Denend, L., Rait, D., Venook, R., Lucian, L., Azagury, D., Yock, P. G., Brinton, T. J.  
2017; 45 (5): 1163-1171
- **Optical Coherence Tomography Characterization of Coronary Lithoplasty for Treatment of Calcified Lesions: First Description.** *JACC. Cardiovascular imaging*  
Ali, Z. A., Brinton, T. J., Hill, J. M., Maehara, A., Matsumura, M., Karimi Galougahi, K., Illindala, U., Götberg, M., Whitbourn, R., Van Mieghem, N., Meredith, I. T., Di Mario, C., Fajadet, et al  
2017; 10 (8): 897–906
- **The Impact of Postgraduate Health Technology Innovation Training: Outcomes of the Stanford Biodesign Fellowship.** *Annals of biomedical engineering*  
Wall, J., Hellman, E., Denend, L., Rait, D., Venook, R., Lucian, L., Azagury, D., Yock, P. G., Brinton, T. J.  
2016
- **Multimodality Molecular Imaging of Cardiac Cell Transplantation: Part II. In Vivo Imaging of Bone Marrow Stromal Cells in Swine with PET/CT and MR Imaging.** *Radiology*  
Parashurama, N., Ahn, B., Ziv, K., Ito, K., Paulmurugan, R., Willmann, J. K., Chung, J., Ikeno, F., Swanson, J. C., Merk, D. R., Lyons, J. K., Yerushalmi, D., Teramoto, et al  
2016; 280 (3): 826-836
- **Multimodality Molecular Imaging of Cardiac Cell Transplantation: Part I. Reporter Gene Design, Characterization, and Optical in Vivo Imaging of Bone Marrow Stromal Cells after Myocardial Infarction.** *Radiology*

- Parashurama, N., Ahn, B., Ziv, K., Ito, K., Paulmurugan, R., Willmann, J. K., Chung, J., Ikeno, F., Swanson, J. C., Merk, D. R., Lyons, J. K., Yerushalmi, D., Teramoto, et al  
2016; 280 (3): 815-825
- **Externally Delivered Focused Ultrasound for Renal Denervation** *JACC-CARDIOVASCULAR INTERVENTIONS*  
Neuzil, P., Ormiston, J., Brinton, T. J., Starek, Z., Esler, M., Dawood, O., Anderson, T. L., Gertner, M., Whitbourne, R., Schmieder, R. E.  
2016; 9 (12): 1292-1299
  - **Needs-Based Innovation in Cardiovascular Medicine The Stanford Biodesign Process** *JACC. Basic to translational science*  
Schwartz, J. G., Kumar, U. N., Azagury, D. E., Brinton, T. J., Yock, P. G.  
2016; 1 (6): 541-547
  - **Needs-Based Innovation in Cardiovascular Medicine: The Stanford Biodesign Process.** *JACC. Basic to translational science*  
Schwartz, J. G., Kumar, U. N., Azagury, D. E., Brinton, T. J., Yock, P. G.  
2016; 1 (6): 541-47
  - **The impact of postgraduate health technology innovation training: Outcomes of the Stanford Biodesign Fellowship.** *Annals of Biomedical Engineering*  
Wall, J., Hellman, E., Denend, L., Rait, D., Venook, R., Azagury, D., Yock, P., Brinton, T.  
2016
  - **Non-invasive Renal Denervation Using Externally Delivered Focused Ultrasound: Early Experience Using Doppler based Imaging Tracking and Targeting for Treatment**  
Ormiston, J. A., Anderson, T., Brinton, T. J., Dawood, O., Gertner, M., Kay, P., Neuzil, P., Starek, Z.  
ELSEVIER SCIENCE INC.2014: B121
  - **Intracoronary and Retrograde Coronary Venous Myocardial Delivery of Adipose-Derived Stem Cells in Swine Infarction Lead to Transient Myocardial Trapping with Predominant Pulmonary Redistribution** *CATHETERIZATION AND CARDIOVASCULAR INTERVENTIONS*  
Hong, S. J., Hou, D., Brinton, T. J., Johnstone, B., Feng, D., Rogers, P., Fearon, W. F., Yock, P., March, K. L.  
2014; 83 (1): E17-E25
  - **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  
2013; 41 (9): 1803-1810
  - **Cost-effectiveness landscape analysis of treatments addressing xerostomia in patients receiving head and neck radiation therapy.** *Oral surgery, oral medicine, oral pathology and oral radiology*  
Sasportas, L. S., Hosford, D. N., Sodini, M. A., Waters, D. J., Zambricki, E. A., Barral, J. K., Graves, E. E., Brinton, T. J., Yock, P. G., Le, Q., Sirjani, D.  
2013; 116 (1): e37-51
  - **Gastroenterology and Biodesign: Contributing to the Future of Our Specialty** *GASTROENTEROLOGY*  
Nimgaonkar, A., Yock, P. G., Brinton, T. J., Krummel, T., Pasricha, P. J.  
2013; 144 (2): 258-262
  - **Applying a Structured Innovation Process to Interventional Radiology: A Single-Center Experience** *JOURNAL OF VASCULAR AND INTERVENTIONAL RADIOLOGY*  
Sista, A. K., Hwang, G. L., Hovsepian, D. M., Sze, D. Y., Kuo, W. T., Kothary, N., Louie, J. D., Yamada, K., Hong, R., Dhanani, R., Brinton, T. J., Krummel, T. M., Makower, et al  
2012; 23 (4): 488-494
  - **Dual Manganese-Enhanced and Delayed Gadolinium-Enhanced MRI Detects Myocardial Border Zone Injury in a Pig Ischemia-Reperfusion Model** *CIRCULATION-CARDIOVASCULAR IMAGING*  
Dash, R., Chung, J., Ikeno, F., Hahn-Windgassen, A., Matsuura, Y., Bennett, M. V., Lyons, J. K., Teramoto, T., Robbins, R. C., McConnell, M. V., Yeung, A. C., Brinton, T. J., Harnish, et al  
2011; 4 (5): 574-582
  - **Teaching Biomedical Technology Innovation as a Discipline** *SCIENCE TRANSLATIONAL MEDICINE*  
Yock, P. G., Brinton, T. J., Zenios, S. A.  
2011; 3 (92)

- **RevaTen platelet-rich plasma improves cardiac function after myocardial injury.** *Cardiovascular revascularization medicine : including molecular interventions*  
Mishra, A., Velotta, J., Brinton, T. J., Wang, X., Chang, S., Palmer, O., Sheikh, A., Chung, J., Yang, P. C., Robbins, R., Fischbein, M.  
2011; 12 (3): 158-163
- **Detection of Injured Border Zone Myocardium Using Manganese-Enhanced and Delayed-Enhanced MRI in a Pig Ischemia-Reperfusion Model**  
Dash, R., Chung, J., Hahn-Windgassen, A., Matsuura, Y., Ikeno, F., Lyons, J., Teramoto, T., Yeung, A. C., McConnell, M. V., Brinton, T. J., Harnish, P., Yang, P. C.  
LIPPINCOTT WILLIAMS & WILKINS.2010
- **Imaging Gene Expression in Human Mesenchymal Stem Cells: From Small to Large Animals** *RADIOLOGY*  
Willmann, J. K., Paulmurugan, R., Rodriguez-Porcel, M., Stein, W., Brinton, T. J., Connolly, A. J., Nielsen, C. H., Lutz, A. M., Lyons, J., Ikeno, F., Suzuki, Y., Rosenberg, J., Chen, et al  
2009; 252 (1): 117-127
- **Bone Marrow Stem Cells for the Treatment of Ischemic Heart Disease: A Clinical Trial Review** *JOURNAL OF CARDIOVASCULAR TRANSLATIONAL RESEARCH*  
Fuh, E., Brinton, T. J.  
2009; 2 (2): 202-218
- **Reporter gene imaging following percutaneous delivery in swine - Moving toward clinical applications** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*  
Rodriguez-Porcel, M., Brinton, T. J., Chen, I. Y., Gheysens, O., Lyons, J., Ikeno, F., Willmann, J. K., Wu, L., Wu, J. C., Yeung, A. C., Yock, P., Gambhir, S. S.  
2008; 51 (5): 595-597
- **Predictive value of the index of microcirculatory resistance in patients with ST-segment elevation myocardial infarction** *JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY*  
Fearon, W. F., Shah, M., Ng, M., Brinton, T., Wilson, A., Tremmel, J. A., Schnittger, I., Lee, D. P., Vagelos, R. H., Fitzgerald, P. J., Yock, P. G., Yeung, A. C.  
2008; 51 (5): 560-565
- **Recurrent spontaneous coronary artery dissection with transient left ventricular systolic dysfunction.** *International journal of cardiology*  
Ardehali, R., Brinton, T. J., Wilson, A. M., Gradman, M., Vagelos, R. H., Lee, D. P.  
2007; 116 (2): e48-50
- **Successful removal of a paradoxical coronary embolus using an aspiration catheter** *NATURE CLINICAL PRACTICE CARDIOVASCULAR MEDICINE*  
Wilson, A. M., Ardehali, R., Brinton, T. J., Yeung, A. C., Vagelos, R.  
2006; 3 (11): 633-636
- **Cutting balloon inflation for drug-eluting stent underexpansion due to unrecognized coronary arterial calcification.** *Cardiovascular revascularization medicine : including molecular interventions*  
Wilson, A., Ardehali, R., Brinton, T. J., Yeung, A. C., Lee, D. P.  
2006; 7 (3): 185-188
- **Radiolabeled cell distribution after intramyocardial, intracoronary, and interstitial retrograde coronary venous delivery - Implications for current clinical trials** *CIRCULATION*  
Hou, D. M., Youssef, E. A., Brinton, T. J., Zhang, P., Rogers, P., Price, E. T., Yeung, A. C., Johnstone, B. H., Yock, P. G., March, K. L.  
2005; 112 (9): I150-I156
- **Brachial artery distensibility and relation to cardiovascular risk factors in healthy young adults (The Bogalusa Heart Study)** *AMERICAN JOURNAL OF CARDIOLOGY*  
Urbina, E. M., Brinton, T. J., Elkasabany, A., Berenson, G. S.  
2002; 89 (8): 946-951
- **Age-based differences between mercury sphygmomanometer and pulse dynamic blood pressure measurements.** *Blood pressure monitoring*  
Brinton, T. J., Walls, E. D., Yajnik, A. K., Chio, S. S.  
1998; 3 (2): 125-29
- **Validation of pulse dynamic blood pressure measurement by auscultation.** *Blood pressure monitoring*  
Brinton, T. J., Walls, E. D., Chio, S. S.  
1998; 3 (2): 121-24

- **Development and validation of a noninvasive method to determine arterial pressure and vascular compliance** *AMERICAN JOURNAL OF CARDIOLOGY*  
Brinton, T. J., Cotter, B., Kailasam, M. T., Brown, D. L., Chio, S. S., Oconnor, D. T., DeMaria, A. N.  
1997; 80 (3): 323-330
- **Arterial compliance by cuff sphygmomanometer - Application to hypertension and early changes in subjects at genetic risk** *HYPERTENSION*  
Brinton, T. J., Kailasam, M. T., Wu, R. A., Cervenka, J. H., Chio, S. S., Parmer, R. J., DeMaria, A. N., Oconnor, D. T.  
1996; 28 (4): 599-603
- **Corresponding pulse pressure and arterial compliance variations during ambulatory monitoring** *Conference on Time-Dependent Structure and Control of Arterial Blood Pressure*  
Brinton, T. J., Neutel, J. M., Chio, S. S., Walls, E. D., Tai, L. C., Franklin, S. S., Smith, D. H., Weber, M. A.  
NEW YORK ACAD SCIENCES.1996: 310-312