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| Cardiovascular Biomechanics and Ultrasound Laboratory | logo_full_colour |
| National University of Singapore, Department of biomedical engineering |

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| |  | | --- | | Menu | | [Lab Home](file:///C:\Users\ChoonHwai\Documents\GitHub\yaplab.github.io\LabHome.htm) | | [People](file:///C:\Users\ChoonHwai\Documents\GitHub\yaplab.github.io\People.htm) | | [Research Projects](file:///C:\Users\ChoonHwai\Documents\GitHub\yaplab.github.io\Research.htm) | | [Publications](file:///C:\Users\ChoonHwai\Documents\GitHub\yaplab.github.io\Publications.htm) | | [Position Vacancy](file:///C:\Users\ChoonHwai\Documents\GitHub\yaplab.github.io\Vacancy.htm) | |  | | **Principal Investigator** | | | |
|  | | | |
|  | **Name:**  Yap Choon Hwai, Ph.D.  **Qualifications:** | | |
| 2006-2011 | Ph.D. | Bioengineering  (Georgia Institute of Technology) |
| 2000-2001 | M.S. | Civil Engineering  (California Institute of Technology) |
| 1997-2000 | B.S. | Civil Engineering  (Cornell University) |
| **Selected Awards:**   1. The Chih Foundation Award, 2011, Georgia Institute of Technology. 2. Yamaguchi Medal, 2015 Asia-Pacific Biomechanics Conference, Sapporo, Japan 3. 2015 National University of Singapore Young Investigator Award   **Appointment:**  Assistant Professor  **Department:**  Department of Bioengineering  **Contact:**  Blk E4, #04-24,  8 Engineering Drive 3,  Singapore 117583  Email: [bieyapc@nus.edu.sg](mailto:bieyapc@nus.edu.sg)  Tel: (65) 6516-4257  Fax: (65) 6872-3069 | | |
|  | **Lab Members** | | | |
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|  | 1c1a085 | **Vivek Vasudevan**  Post-doctoral Research Fellow  Department of Biomedical Engineering  **Qualifications:**   |  |  |  | | --- | --- | --- | | 2013 | Ph.D. | Chemical Engineering  (National University of Singapore) | | 2004 | M.S. | Chemical Engineering  (West Virginia University, USA) | | 2001 | B.E. | Chemical Engineering  (Institute of Chemical Technology, formerly UDCT, Mumbai, India) |   **Research Interests:**   * Computational Fluid Dynamics of transport processes Â– momentum transfer, heat transfer, chemical reactions, etc. * Image Analysis * Geometry preparation for CFD simulations   **Email:** [bievv@nus.edu.sg](mailto:bievv@nus.edu.sg)  **Linkedin Profile:** Â <https://sg.linkedin.com/in/vasudevanvivek> | | |
|  | Li Zhe2 | **Li Zhe**  Post-doctoral Research Fellow  Department of Biomedical Engineering  **Qualifications:**   |  |  |  | | --- | --- | --- | | 2016 | Ph.D. | Mechanical Engineering  (National University of Singapore) | | 2012 | M.Eng. | Precision and Non-traditional Manufacturing  (Dalian University of Technology) | | 2009 | B.Eng. | Mechanical Engineering  (Dalian University of Technology) |   **Research Interests:**   * Development of artificial heart based on dielectric elastomer * Modelling of performance of dielectric elastomer under various mechanical / electrical loading conditions using finite element or numerical methods   **Email:** [bielzhe@nus.edu.sg](mailto:bielzhe@nus.edu.sg)  **Linkedin Profile:** [https://www.linkedin.com/in/zhe-li-77531970](https://exchange.nus.edu.sg/owa/redir.aspx?C=jC48hXdm5UK8DzFvjdCJsTo3lTwb99MINmVk7i7o1b7WSz5kmwnJ-WV_GS9UOX4W9yV-M0JZ34s.&URL=https%3a%2f%2fwww.linkedin.com%2fin%2fzhe-li-77531970) | | |
|  | photo2 | **Chan Wei Xuan**  Post-doctoral Research Fellow  Department of Biomedical Engineering  **Qualifications:**   |  |  |  | | --- | --- | --- | | 2016 | Ph.D. | Mechanical Engineering  (Nanyang Technological University) | | 2011 | B.Eng. | Aerospace Engineering  (Nanyang Technological University) |   **Research Interests:**   * Computational Fluid Dynamics of biomechanical system * Theoretical model of biomechanical system   **Email:** [biecwx@u.nus.edu](mailto:biecwx@u.nus.edu) | | |
|  | 2012-07-19 12.33.11 | **Saw Shier Nee**  Graduate Student (PhD), PresidentÂ’s Graduate Fellow,  Department of Biomedical Engineering  **Qualifications:** B.Sc. (Biomedical Engineering), University of Malaya  **Research Interests:**   * Improved Methods to detect and treat Intrauterine Growth Restriction. * Biosolid and Biofluid mechanics of the placenta.   **Email:** [biessn@nus.edu.sg](mailto:biessn@nus.edu.sg) | | |
|  |  | **Foo Yoke Yin**  PhD Student,  Department of Biomedical Engineering  **Qualifications:**  B.Sc. (Biomedical Engineering), University of Malaya  **Research Interests:**   * Embryonic heart fluid dynamics * Design and characterization of cardiac pump using dielectric elastomer   **Email:** [biefyy@nus.edu.sg](mailto:biefyy@nus.edu.sg) | | |
|  |  | **Sheldon Ho**  Graduate Student (PhD), NUS Graduate School for Integrative Science and Engineering (NGS) Scholar,  Department of Biomedical Engineering  **Qualifications:** B.Sc. (Biomedical Engineering), National University of Singapore  **Research Interests:**   * Role of Mechanical forces in congenital cardiovascular malformations studies, using Chick Embryos microsurgery and ultrasound imaging * Usage of dielectric elastomer in blood pump   **Email:** [sheldon.ho@u.nus.edu](mailto:sheldon.ho@u.nus.edu) | | |
|  | Hadi | **Hadi Wiputra**  Graduate Student (PhD), NUS Graduate School for Integrative Science and Engineering (NGS) Scholar ,  Department of Biomedical Engineering  **Qualifications:** B.Sc. (Biomedical Engineering), National University of Singapore  **Research Interests:**   * Fluid Simulation of Fetal Hearts for prediction of congenital heart diseases * Image processing * Object tracking under ultrasound   **Email:** [e0011473 @u.nus.edu](mailto:sheldon.ho@u.nus.edu) | | |
|  | ../Desktop/picture/個人照/portrait.jpg | **Cheng Yi Chih**  Graduate Student(MS.), Department of Biomedical Egnineering  **Qualifications:**   |  |  |  | | --- | --- | --- | | 2017-current (pursuing) | M.Sc. | Biomedical Engineering  (National University of Singapore) | | 2012 | B.E. | Interdisciplinary program of SciencesÂ Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Â Double majors in Chemistry, Material Science and Engineering  (Tsing Hua University, Taiwan) |   **Research Interests:**   * Biomaterial development * Anti-fouling polymer synthesis * Surface coating and modification * Medical regulation   **Email:** [t830808@gmail.com](mailto:t830808@gmail.com%0d)  **LinkedIn Profile:** [**https://www.linkedin.com/in/yi-chih-cheng-054651106/**](https://www.linkedin.com/in/yi-chih-cheng-054651106/) | | |
|  | NGUYEN BA LOC | **Nguyen Ba Loc**  Research Engineer, Department of Biomedical Engineering  **Qualifications:**  B.E (Bioengineering), Nanyang Technological University  **Research Interest:**  Computational Bio-Physics Simulation  Medical Device Design of Cardiac Pump  **Email:** [bienbl@nus.edu.sg](mailto:bienbl@nus.edu.sg) | | |
|  |  | **Zheng Yu**  PhD Student,  Department of Biomedical Engineering  **Qualifications:**   |  |  |  | | --- | --- | --- | | 2017 | B.Eng. | Biomedical Engineering  (Zhejiang University) |   **Research Interests:**   * Fluid simulation of Heart Failure Preserved Ejection Fraction * Fluid Structure Interaction method   **Email:** [e0348827@u.nus.edu](mailto:e0348827@u.nus.edu) | | |
|  |  | **Jennifer Marlena**  Graduate Student (M.Eng.),  Department of Biomedical Engineering  **Qualifications:** B.Eng. (Biomedical Engineering), National University of Singapore  **Research Interests:** Anti-Thrombotic Blood Pump via Novel Coating  **Email:** [e0350240@u.nus.edu](mailto:e0350240@u.nus.edu) | | |
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|  | **Alumni** | | | |
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|  | **Dr. Lai Chang Quan** | **Research Fellow (2014-2015)**  **Current Appointment: Temasek Laboratories** | | |
|  | **Ms. Germaine Tan Xin Yi** | **Research Engineer (2014-2015)**  **Current Appointment: Singhealth** | | |
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|  | **Gordon Ko Zhen Yu** | **Research Engineer (2016)**  **Current Appointment: Masters Student, NUS** | | |