# Sejin Choi, M.D.

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## Education

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| 2014 – 2018 | M.D, M.S, College of Medicine, Seoul National University, Seoul, Korea<br>(Master's Thesis: Association between Serum Cholesterol Level and Survival after Out-of-Hospital Cardiac Arrest, Advisor: Sang Do Shin, MD, PhD) |
| 2008 – 2014 | B.S. in Electrical and Computer Engineering, Seoul National University, Seoul, Korea<br>(Summa cum laude) |
| 2005 – 2008 | Yangchung High School |

## Fellowships and Awards

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| 2017 | Yuhan Health Fellowship<br><br>- Granted $10,000 for research on "Secondary Neurulation using Submicron imaging modality and tissue-clearing technology" |
| 2016 | Seoul National University Student Research Fellowship<br><br>- Granted $3,000 for research on "Defining Secondary Neurulation: Establishment of Anatomical 3D Atlas and Understanding Stem Cell Features of Caudal Cell Mass" |
| 2014 | Han Man Chung Research Fellowship<br><br>- Awarded $3,000 to the medical student pursuing a research on medical imaging and radiology |
| 2014 | Hwang Junsik Student Fellowship<br><br>- Granted $5,000 stipend for a research on the public health problem of developing countries |
| 2013 | Conceptual Bridge Design Award (3rd place) |
| 2013 | Seoul National University Undergraduate Research Fellowship<br><br>- With the grant, investigated "Enhanced Multi-color Switching, Labeling, Imaging, and Tracking using Upconverting Nanoparticles doped with Tm3+ in Biological System" (Advisor: Yoonchan Jeong, Ph.D.)<br><br>- Awarded Excellence Prize (3rd place) in Seoul National University Undergraduate Research Competition |
| 2012 | 'Korea Foundation for Advanced Studies' Undergraduate Fellowship |
| 2012 | SNU Science & Technology Writing Prize (1st place)<br><br>- With the topic of "Policy Suggestion with New Technological Methodology on Cyber bullying of Online Community" |

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| 2012 | National Undergraduate Research Fellowship |
| | - Granted $3,000 for "Implementation of Visual Tracking and Regional Deblurring on Mobile Devices" (Advisor: Sang Uk Lee, Ph.D.) |
| | - Awarded the 1st place prize in National Undergraduate Research Competition |
| 2011 | 20th General Electrics Scholar-Leader Fellowship |
| | - Awarded to 6 top engineering undergraduates in Korea along with annual scholarship of $3,000 for 3 year |
| 2008 | Korea National Science and Engineering Student Fellowship - Tuition support for 4 years |

**Research Experience**

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| 2016 - 2018 | Performing researches on Secondary neurulation, Moyamoya disease, DIPG in Professor Ji Yeoun Lee's lab |
| 2014 - 2016 | Development of computer-aided diagnosis (CAD) system for brain metastasis using semi-automatic segmentation MRI (Advisor: Seung Hong Choi, M.D., Ph.D.) |
| 2014 | Association between Pornography consumption and Obsessive- Compulsive Disorder of Korean male high school students (Advisor: Aesun Shin, M.D., Ph.D.) |
| | - Received the 3rd place prize for SNU preventive medicine research award |
| 2014 – Current | A Study of Socioeconomic Status and Quality of AIDS Treatment in South Africa (Advisor: Frank Tanser, Ph.D.) |
| 2014 - 2016 | Study of the trauma epidemiology and trauma care systems of Asian countries (Advisor: Sang Do Shin, M.D., Ph.D.) |
| 2012 - 2013 | A study on bio-based nanoparticles and an optimized optical system for effective drug delivery and bio-imaging (Advisor: Yoonchan Jeong, Ph.D.) |
| 2012 | Investigated "Biomimetic Scattering Enhanced Nanostructure Design for Plasmonic Solar Cells" in Namkyoo Park's group, Seoul National University |
| | - Completed an honors thesis on this project |
| 2011 – 2014 | Investigated "Wireless Sensor Networks based Battery Management Systems for Energy Storage Systems in Smart Grids" in Jungwoo Lee's Group, Seoul National University |

**Work Experience**

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| 2019 – 2021 | Public Health Doctor (Correctional Physician) at Seoul Detention Center |
| 2018 – 2019 | Public Health Doctor (Correctional Physician) at Suncheon Prison |
| 2014 – 2018 | Reporter of SNU Alumni Newspaper |
| 2013 – 2014 | Translator of The Church of Jesus Christ of Latter-day Saints |
| 2012 | Software developer of Kerapist (Start-up using Microsoft Kinect for rehabilitation) |
| 2009 – 2011 | Missionary of The Church of Jesus Christ of Latter-day Saints |
| 2008, 2011, 2013 | Math & Physics teaching assistant at Seoul National University |

**Skills**

Languages: Fluent English (TOEFL iBT 115/120 (2013), IELTS 8.0/9.0), Basic Chinese & German

Computer Languages: C/C++/Verilog/Python

SW Tools: MATLAB, COMSOL, ADS, R, SAS

**Publication**

1. **Choi, S.** et al., "Comparison of trauma care systems in Asian countries: A systematic literature review", Emergency Medicine Australasia, **2017.**
2. **Choi, S.** et al., "Clinical significance of Intraoperative electroencephalogram for prediction of post-operative outcome in pediatric Moyamoya disease", Clinical Neurophysiology, **2017.** (submitted)
3. **Choi, S.** et al., "3D visualization of secondary neurulation and caudal cell mass in chick embryos" (manuscript in preparation)
4. **Choi, S.**, Yi, E., "Ideals and realities of restorative correction: Focusing on mental health, aging, and communicable disease of prisoners", Public Health Affairs, **2018.**

**Conference Proceedings**

1. **Choi, S.;** Jeong, Y. "Fast and easy synthesis of ZnS:Mn nanoparticles for bio-imaging and optical fiber sensing", 21st Conference on Optoelectronics & Optical Communications, **2014**
2. **Choi, S.;** Oh, MY.; Kim, N.; Jung, Y.; Ro, YS.; Shin, SD. "Comparison of trauma care systems in Asian countries: Report from a systematic literature review", 8th Asian Conference for Emergency Medicine, **2015**
3. **Choi, S**. et al., "3D visualization of secondary neurulation and caudal cell mass in chick embryos", Annual Meeting of International Society of Pediatric Neurosurgery, **2017**.
4. **Choi, S**. et al., "Clinical significance of Intraoperative electroencephalogram for prediction of post-operative outcome in pediatric Moyamoya disease", International Society of Intraoperative Neurophysiology Congress, **2017**.

**Others**

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| 2012 - | SNU Tomorrow's Edge Membership (STEM)<br><br>- Honor society opened only to top engineering students of SNU with leadership, language skill and excellent academic achievements |
| 2012 – 2013 | Young Future Energy Leaders<br><br>- Selected group of young professionals and students from around the world to become more engaged in finding solutions to the world's biggest challenges: energy efficiency and climate change |
| 2016 | Observership at The University of Tokyo, Department of Plastic and Reconstructive Surgery (Advisor: Professor Isao Koshima, M.D.) |
| 2016 | Research intern at The Rockefeller University (Advisor: Professor Shixin Liu, Ph. D.) |
| 2017 | Subinternship at Columbia University Medical Center Neurological Intensive Care Unit |
| 2017 | Clerkship at Kyoto University Neurosurgery Department |