David M. O'Sullivan, Ph.D. Associate Professor of Sports Engineering Director of International Head Impact Safety Laboratory

Pusan National University Division of Sport Sciences Pusan, Republic of Korea +82+10-2485-5811 (mobile) davidosullivantcd@gmail.com davidosullivan@pusan.ac.kr

EDUCATION

Ph.D. Seoul National University, Physical Education, Biomechanics, 2012

Dissertation Title: Assessing Taekwondo Kick Impact Force and Headgear Impact Attenuation

MS Seoul National University, Physical Education, Biomechanics, 2008 Thesis Title: Impact Force of the Taekwondo and Yongmudo Turning Kick

B.A. & B.A.I. Trinity College Dublin, Mechanical & Manufacturing Engineering, 1999 Construct a quantifying ROM testing device for seated abduction & testing

reliability of this machine

RESEARCH MISSION AND ACTIVITY

My continued scholarship mission is to study the mechanics of head injuries in sports. I am interested in improving the safety of protective headgear and helmets by studying in-vivo head impact biomechanics and evaluating the current headgear/helmet to develop better impact testing standards. Ultimately, I want to develop a non-invasive concussion assessment tool that can save lives in both sporting situations and in the military population. An additional area of research interest is my focus on movement quantification to be able to detect early onset of dysfunction in movement (i.e. gait) and pain caused by disease, such as osteoarthritis, autism, Alzheimer's.

COURSES & EDUCATION

Pusan National University

Sports Engineering (Fall 2017, 2016, 2015)

Biomechanics Laboratory (Spring 2017, 2016, 2015)

Kinesiology and Anatomy (Spring 2017, 2016, 2015)

Introduction to Sports Science (Spring 2015, 2016)

Fitness and Wellness for Life (Spring 2017, 2016, 2015, 2014)

First Aid, CPR and AED (Fall 2016, 2015, 2014)

Weight Training Methods (Fall 2017, 2016, 2015, 2014)

Snow Boarding (Winter 2016, 2015, 2014)

Chung-Ang University

Sports Biomechanics (Fall 2009-2013)

Human Anatomy (Spring 2009-2012)

Health and Fitness for the Older Population (Spring 2010 -2013)

Weight Training for Health and Fitness (Fall 2009-2013)

Bowling (Spring 2009 – 2013)

Golf Swing Analysis (Fall 2010-2013)

Leisure Sports (Spring & Fall 2013)

Graduate Committee Chair (Pusan National and Hallym University, Department of Physical Therapy)

Woo-ju Chung	MS (thesis)	2016
Sung-Shin Kim	Ph.D. (dissertation)	2013
Mi-Sun Hong	MS (thesis)	2013
Yun-Jin Ko	MS (thesis)	2013
Hee-Sung Lee	MS (thesis)	2012
Sung-Ho Kwon	MS (thesis)	2012

PROFESSIONAL APPOINTMENTS

World Taekwondo Para-Taekwondo Classification Committee August 8th 2019 (2-Year Appointment)

World Taekwondo Federation (WTF) Para-Taekwondo Research and Educational Board January 2014-2018 (2-Year Appointment)

Responsibilities:

Keep abreast of international statutes concerning development and regulation of an international Paralympic sport. Attend meetings at WTF headquarters in Lausanne, Switzerland. Collaborate in research with representatives from the major disability organizations to finalize the Para-Taekwondo Classification Code to be enacted by the General Assembly. Research and development and drafting of WTF-Paralympic classification code.

FUNDING & JOINT PROJECTS

Principal Investigator 2019 (March to August)

Foundation study on the locomotion characteristics of the Korean population

Funding: Total 46,750,000 Won / Approx. \$35,000 (**Funded**)

Principal Investigator 2016-2019

Research Exchange for Development of Service Platform Using Non-verbal Communication Interface – Focusing on HCI based on Movement and Gesture

National Research Foundation (Korea)

Funding: Total 240,000,000 Won / Approx. \$ 217,735, 80,000,000 won per year (**Funded**)

Principal Investigator 2015 October 1st to March 31st, 2016 (6 months)

Effects of a 'Good Posture Cushion' on the kinematics of sitting trunk posture

Korean Telecom (KT) Communications and Pusan National University Hospital

Funding: 30,000,000 won (approx. \$29,000 USD) (**funded**)

Collaborator 2015 - 2018

Business Model Development for Children's Physical Activity Convergence Contents and Health Care Service Platform Using Gesture Recognition-based Immersive Interactive Technology

Korean Evaluation Institute of Industrial Technology

Funding: 14 billion won (approx. \$1,400,000 USD) (Funded)

Principal Investigator 2014-2015

In-vivo head impact analysis during taekwondo competition

National Research Foundation (Korea)

Funding: 20,000,000 Won / Approx. \$18,820 (Funded)

Principal Investigator 2013-2014

Evaluation of Taekwondo and Boxing Headgear Impact Attenuation Performance

National Research Foundation (Korea)

Funding: 20,000,000 Won / Approx. \$18,820 (**Funded**)

Principal Investigator 2011

Evaluation of current tackwordo headgear safety performance and the development and validation of a taekwondo headgear impact telemetry system.

National Operating Committee on Standards for Athletic Equipment Grant, May, 2011:

Funding: \$60,000 (Not Funded)

Collaborator 2011

Development of an in-helmet live head impact telemetry system for taekwondo: An estimation of concussion threshold and injury mechanisms

National Research Foundation (Korea)

Funding: 100,000,000 Won / Approx. \$94,100 (Not Funded)

Collaborator 2010

Investigation of Players and Coaches Knowledge about Concussion

National Research Foundation (Korea)

Funding: 10,000,000 Won / Approx. \$9,410 (Not Funded)

Research Assistant 2008-2009

Development of Virtual Reality Sporting Environment - Snowboarding and Golf Basic Science Research Program through the National Research Foundation (Korea) Funded by Ministry of Education, Science and Technology, Korea.

Funding: Approx. 50,000,000 Won / \$47,050 (**Funded**)

Research Assistant 2008-2009

Biomechanical Investigation of Taekwondo Techniques

Kukkiwon - Headquarters of World Taekwondo Federation

Funded by Ministry of Education, Science and Technology, Korea.

Funding: 4,000,000 Won / Approx \$37,640 (**Funded**)

PUBLISHED PEER-REVIEWED ARTICLES (28 total)

- Tiernan S, Byrne G, O'Sullivan DM. Evaluation of skin-mounted sensor for head impact measurement, Journal of Engineering in Medicine, 2019; 1-10.
- 2. Kim YS, O'Sullivan DM, Shin SK. Can 24 weeks strength training reduce feelings of depression and increase neurotransmitter in elderly females?, Experimental Gerontology 2019:115:62-68
- 3. Kim SK, O'Sullivan DM. Gait Pattern of Hemiplegic Patients with Swimming Aqua-noodles, Korean Journal of Sports Biomechanics, 2019; 29(1): 1-7.
- Tiernan S, O'Sullivan DM, Byrne G. Repeatability and Reliability Evaluation of a Wireless head-band sensor, *The Asian Journal of Kinesiology*, 2018; 20(4):70-75.
- 5. Lim TH, Jang CY, O'Sullivan DM, Oh HK. Applications of psychological skills training for Paralympic table tennis athletes, *Journal of Exercise Rehabilitation* 2018;14(3):367-374. Fife GP, **O'Sullivan DM**, Lee SY. Injury Incidence and Severity at the 5th World Para-
- Taekwondo Championships, The Journal of Kinesiology, 2017, 19(1): 45-53.
- **Fife GP, O'Sullivan DM**, Lee SY. Rotational and linear head accelerations from taekwondo kicks and punches. Journal of Sports Science. 2017; DOI: 10.1080/02640414.2017.1398406.

- 8. **O'Sullivan D**, Roe M, Blake C. Analysis of head impacts during sub-elite hurling practice sessions. *Journal of Sports Science*. 2017, DOI: 10.1080/02640414.2017.1373196.
- O'Sullivan DM, Fife GP. Biomechanical head impact characteristics during sparring practice sessions in high school taekwondo athletes. *Journal of Neurosurgery Pediatrics*. 2017; DOI: 10.3171/2017.1.PEDS16432.
- 10. **O'Sullivan DM**, Fife GP. Impact attenuation of protective boxing and taekwondo headgear, European Journal of Sport Science, 2016, DOI: 10.1080/17461391.2016.1161073
- 11. Lim BO, **O'Sullivan DM**, Choi BG, Kim MY. Comparative gait analysis between children with autism and age-matched controls: analysis with temporal-spatial and foot pressure variables. *Journal of Physical Therapy Science*. 2016; 28 pp. 286-292.
- 12. Lim TH, **O'Sullivan D**, Case Study of Mental Skills Training for a Taekwondo Olympian. *Journal of Human Kinetics*. 2016, pp. 235-245.
- 13. Lee SM, Lee CH, **O'Sullivan DM**, Jung JH, Park JJ. Clinical effectiveness of a Pilates treatment for forward head posture. *Journal of Physical Therapy Science*. 2016; 28 pp. 2009-2013.
- 14. **O'Sullivan D**, Fife G, Pieter W, Lim TH, Shin IS. Resultant linear acceleration of an instrumented head form does not differ between junior and collegiate taekwondo athletes' kicks. *Journal of Sport and Health Science*. Available online 28 April 2015
- 15. **O'Sullivan D**, Fife G. Biomechanical performance factors for development of minimum disability requirements in Para-Taekwondo Part 1. *Central European Journal of Sports Sciences and Medicine*. 2015, Vol. 11, No. 3, 63-69
- 16. Fife GP, **O'Sullivan D**, Pieter W. Biomechanics of head injury in Olympic taekwondo and boxing. *Biology of Sport*. 2013; 30: pp. 263-268. DOI: 10.5604/20831862.1077551
- 17. Moon JH, Shin IS, Kang MS, Kim YH, Lee KW, Park JW, Kim DH, Koo DH, **O'Sullivan D**. The Effects of Shoulder Flexion Angles on the Recruitment of Upper-extremity Muscles during Isometric Contraction. *Journal of Physical Therapy Science*. 2013; 25 pp. 1299-1301.
- 18. **O'Sullivan D**, Fife GP, Pieter W, Shin IS. Safety Performance Evaluation of Taekwondo Headgear. *British Journal of Sports Medicine*. 2013; 47, pp 44-55.
- 19. Fife GP, **O'Sullivan DM**, Pieter W, Kaminski TW. The effects of taekwondo kicks on head accelerations and head injury: a pilot study. *International SportMed Journal*. 2013. Vol 14 (2) pp 53-66.
- 20. Woo JH, Ko JY, Choi EY, Her JG, **O'Sullivan D**. Development and Evaluation of a Novel Taekwondo Chest Protector to Improve Mobility for the Wearer When Performing Axe Kicks. *Biology of Sport*. 2013; 30 (5) pp. 51-55.
- 21. Lim TH, **O'Sullivan D**. Empirical verification of the effect of taekwondo on manners in elementary school students. *Archives of Budo Science of Martial Arts and Extreme Sports*. 2013 (9), pp. 23-31.
- 22. Kim SB, **O'Sullivan D**. Effects of aqua aerobic therapy exercise for older adults on muscular strength, agility and balance to prevent falling during gait. *Journal of Physical Therapy Science*. 2013. 25 (8), pp. 923-927.
- 23. Choi YC, Her JG, Ko JY, Koo DH, Woo JH, **O'Sullivan D,** Kim HS. The Effects of Chair Height and Foot Position on Chronic Stroke Patients' Sit-To-Walk Movement. *Journal of Physical Therapy Science*. 2013, 25, pp. 431-435.
- 24. Fife GP, **O'Sullivan DM**, Pieter W, Cook DP, Kaminski TW. Effects of Olympic Style Taekwondo Kicks on an Instrumented Head-Form and Resultant Injury Measures. *British Journal of Sports Medicine*. 2012;00: pp. 1–6. doi:10.1136/bjsports-2012-090979 1.
- 25. Pieter W, Fife GP, **O'Sullivan DM**. Competition injuries in taekwondo: a literature review and suggestions for prevention and surveillance British Journal of Sports Medicine.2012;46: pp. 485-491 doi:10.1136/bjsports-2012-091011. *Commissioned by the International Olympic Committee*.
- 26. Lee JT, **O'Sullivan D**. Change in Kinetics and Kinematics during one footed Drop Landing According to an Increase Upper Body Weight. *Korean Journal of Sports Biomechanics*. 21; 1, 2011; pp. 1-7.

- 27. O'Sullivan D, Chung C, Lee K, Kim E, Kang S, Kim T, Shin IS. Measurement and Comparison of Taekwondo and Yongmudo Turning Kick Impact Force for Two Target Heights.

 Journal of Sports Science and Medicine. 2009; 8 (CSSI III): pp. 13-16.

 28. O'Sullivan D, Chung C, Lee K, Kim E, Kang S, Kim T, Shin IS. Measurement and
 Comparison of Taekwondo Body Height Roundhouse Kick. International Journal of Human
- Movement Science. 2008 (2), pp. 115-121.

INTERNATIONAL PRESENTATIONS (Total 36)

- 1. **O'Sullivan DM**, Hansson O. Expert consensus statement to guide evidence-based classificiation for athletes form para Taekwondo: A Delphi Study. Vista 2019 Healthy and Fit for Optimal Performance, September 4-7, Amsterdam.
- 2. Kolykhalova K, **O'Sullivan DM**, Piana S, Kim HY, Park YH, Camurri A. Computer viosn-based system to detect effects of aromatherapy during high school classes via analysis of movement kinematics. HCI International 2019, July 26-31, Orlando, Florida, USA.
- 3. Kolykhalova K, **O'Sullivan DM**, Piana S, Kim HÝ, Park YH, Camurri A. A preliminary evaluation of a computer vision-based system to detect effects of aromatherapy during high school classes via movment analysis. Intelligent Technologies for Interactive Entertainment 10th EAI International Conference, INTETAIN 2018, Guimarães, Portugal, 2018.
- 4. **O'Sullivan DM.**, Fife GP. Standarised athletic performance testing and sport-specific assessment in par-taekwondo: Application to classification and evaluating athlete misrepresentation. Vista 2017 Conference, 20-23 September 2017, Chelsea Hotel Toronto, Canada.
- 5. Kim, H. S., Park, C. I., **O'Sullivan, D**., & Lee, J. (2017, July). Development of Educational Application Using Standard Movement Code-Based on Human Behavior. In International Conference on Human-Computer Interaction (pp. 141-145). Springer, Cham.
- 6. Kim, H. S., Park, C. I., **O'Sullivan**, **D**., & Lee, J. (2017, July). Development of Content for an ICT Screening Program Based on the Emotional and Behavioral Disorder Questionnaire. In International Conference on Human-Computer Interaction (pp. 255-260). Springer, Cham.
- 7. Fife GP., O'Sullivan DM., Hooper ML. Real-time head impact detection of an army paratrooper: a case study from a ch47 jump exercise. Special Operations Medical Assoication (SOMA) 2016 Conference, 1 August 2016, Charlotte Convention Center, USA.
- 8. **O'Sullivan DM**. Head impact Mechanisms during practice for soccer of junior athletes. European College of Sports Science, Crossing Borders through Sport Science 2016 July 6-9, Vienna, Austria.
- 9. **O'Sullivan DM.**, Fife GP. Biomechanical and physiological assessment of taekwondo-specific sparring performance characteristics for evidence-based classification. Vista 2015 Conference, 7-10 October 2015, AC Hotel Palau de Bellavista Girona, Spain.
- 10. Fife GP., **O'Sullivan DM.**, Lee SY. Injuries in para-taekwondo and recommendations for prevention. Vista 2015 Conference, 7-10 October 2015, AC Hotel Palau de Bellavista Girona, Spain.
- 11. **O'Sullivan DM.**, Lee YL., Fife GP. Comparison of the reliability of two electronic chest protector and scoring systems in Olympic taekwondo. European College of Sports Science, Sustainable Sport 2015 June 24 17, Malmo, Sweden.
- 12. Fife GP., **O'Sullivan DM.**, Pieter W., Lee SY. Injury incidence at the 5th World Parataekwondo Championships. National Athletic Trainers' Association of the 66th Clinical Symposia, June 23 June 26, 2015, at AT Expo, St. Louis, Missouri, United States of America
- 13. **O'Sullivan DM.,** Fife GP. Impact Attenuation Performance of New Taekwondo Headgear. International BioMedical Engineering Conference 2014, November 20 22, 2014 Kimdaejung Convention Center, Gwangju. Korea
- 14. **O'Sullivan DM**, Fife GP. A Biomechanical Performance Factors Analysis of Olympic and Para-Taekwondo Athletes. 2014 International Conference of the Korea Society for the Study Physical Education, October 24-25, 2014 Gyeongin National University of Education, Seoul, Korea.
- 15. **O'Sullivan DM**, Fife GP, Vit M, Reguli Z, Pieter W. The Hook Punch, Resultant Linear Acceleration and Rotational Head Velocity in Junior and Senior Boxers: A Pilot Study. Accepted for a poster presentation at the National Athletic Trainers' Association 65th Clinical Symposia & AT Expo. June 25 Saturday, June 28, 2014, Indianapolis, Indiana United States of America
- 16. Fife GP, **O'Sullivan DM**, Pieter W, Lee SY, Čihounková Jl. Resultant Linear Acceleration and Rotational Head Velocity in Junior and Senior Taekwondo Athletes: A Pilot Study. Accepted

- for a poster presentation at the National Athletic Trainers' Association 65th Clinical Symposia & AT Expo. June 25 Saturday, June 28, 2014, Indianapolis, Indiana, United States of America
- 17. **O'Sullivan DM**, Fife GP, Pieter W. Impact Attenuation of Protective Boxing and Taekwondo Headgear. Accepted for a poster presentation at the IOC World Conference on Prevention of Injury & Illness in sport. April 7-9, 2014, Monte Carlo, Principality of Monaco
- 18. Fife GP, O'Sullivan DM, Pieter W, Lee SY. The effect of protective taekwondo footpads on attenuating impacts of an instrumented head-form. Accepted for a poster presentation at the IOC World Conference on Prevention of Injury & Illness in sport. April 7-9, 2014, Monte Carlo, Principality of Monaco.
- 19. Pieter W, Fife GP, **O'Sullivan DM.** Diminished Impact Attenuation Properties of Protective Taekwondo and Boxing Headgear. Accepted for a poster presentation at the IOC World Conference on Prevention of Injury & Illness in sport. April 7-9, 2014, Monte Carlo, Principality of Monaco
- 20. **O'Sullivan DM**, Fife GP, Pieter W. Effects of repeated Impacts on taekwondo headgear attenuation: a pilot study. Poster presentation at the 9th International Scientific Conference on Sport and Quality of Life, Masaryk University, Brno, Czech Republic, November 7-8, 2013
- 21. Fife GP, O'Sullivan DM, Pieter W. Effects of taekwondo footpad protectors on resultant linear acceleration of an instrumented head-form. Oral presentation at the 9th International Scientific Conference on Sport and Quality of Life, Masaryk University, Brno, Czech Republic, November 7-8, 2013
- 22. **O'Sullivan, DM**, Fife GP, Shin, IS. Evaluation of Taekwondo Headgear Impact Attenuation for Posterior and Anterior Head-Impacts. Poster presentation at the 2012 International Convention on Science, Education & Medicine in Sport. Scottish Exhibition & Conference Centre, Glasgow, United Kingdom, July 19-24, 2012
- 23. Fife, GP, **O'Sullivan, DM**, Pieter, W. A Comparison of Head Impacts from the Taekwondo Turning Kick and Boxing Hook Punch. Poster presentation at the 2012 International Convention on Science, Education & Medicine in Sport. Scottish Exhibition & Conference Centre, Glasgow, United Kingdom, July 19-24, 2012
- 24. Yang CS, Lee GS, Choi BK, **O'Sullivan DM**, Kwon YH, Lim BO. Gait Analysis in Children with Autism using temporal spatial and foot Pressure Variables, Poster presentation at the 30th Conference of the International Society of Biomechanics in Sports, Australian Catholic University, Melbourne, Australia, July 2-6 2012
- 25. **O'Sullivan D**, Fife GP, Shin IS. An Analysis of Accelerations Acting On the Head From Various Kicks of Middle School Taekwondo Athletes. Poster presentation at the 23rd International Sport Science Congress, Daegu, South Korea, August 25-27, 2011
- 26. **O'Sullivan D,** Fife GP, Lim TH. Safety Performance Evaluation of Selected Impact Sites of Taekwondo Headgear. Oral presentation at the 23rd International Sport Science Congress, Daegu, South Korea, August 25-27, 2011
- 27. Hansson O, **O'Sullivan DM**. Effects of rule changes on defensive and offensive behaviours from the 2001 to 2009 World Taekwondo Championship final matches. Oral Presentation at the Third International Symposium for Taekwondo Studies, Hyundai Hotel, Gyeongju, Korea, April 29-30, 2011
- 28. Fife GP, **O'Sullivan D**, Pieter W, Cook DP, Kaminski TW. An analysis of forces acting on the head from the taekwondo turning kick. Oral presentation at the 3nd International Symposium for Taekwondo Study, Gyeongju, South Korea, April 29-30, 2011
- 29. Fife GP, Pieter W, O'Sullivan DM, Cook DP, Kaminski TW. Effects of Olympic Style Taekwondo Kicks on and Instrumented Head-form and Resultant Head Injury Measures. Br J Sports Med 2011;45:318-319. Oral presentation at the 2011 IOC World Conference on Prevention of Injury & Illness in Sport. Monte Carlo, Monaco 7-9 April
- 30. Fife GP, Kaminski TW, **O'Sullivan D**, Pieter W, Shin IS, Lim TH. Effects of Olympic style taekwondo kicks on an instrumented head-form and resultant head injury risk: a pilot study. Oral presentation at the 2nd World Scientific Congress of Combat Sports and Martial Arts, Rzeszów, Poland, September, 2010

- 31. Fife GP, Kaminski TW, **O'Sullivan D**, Pieter W, Shin IS, Lim TH. The Velocity of The Taekwondo Axe Kick and Resultant Linear Acceleration of an Instrumented Head Form. Poster presentation at the 34th Annual Meeting of the American Society of Biomechanics, Providence, RI. August 18-21, 2010
- 32. **O'Sullivan DM**, Park YH, Chung CS, Shin IS. Can an external muscle stimulus help the learning of complex gross coordinate motion? Poster Presentation at the 29th Annual Meeting of the American Society of Sports Biomechanics, Penn State, Pennsylvania, USA, March 8-13th 2009
- 33. Park Y, Shin I, Chung C, Lee G, Shin H, **O'Sullivan D.** A Comparison of Accuracy and Stroke Characteristics between two Putting Grip Techniques. Oral Presentation at the Proceedings of the 27th Conference International Society of Biomechanics in Sports, University of Limerick, Limerick, Republic of Ireland, August 17-21, 2009
- 34. **O'Sullivan DM**, Chung CS, Lee KK, Kim EH, Kang SC, Kim TH, Shin IS. Measurement and comparison of Taekwondo and Yongmudo Turning Kick Impact Force for Two Target Heights. Oral Presentation at the 26th Conference International Society of Biomechanics in Sports, Seoul National University, Seoul, Republic of Korea, July 14-18, 2008
- 35. Lim BO, O'Sullivan DM, Jung CS, Shin IS, Kim KK, Lee GS, Kwon YH. Effect of Strength training on the torque of the ankle joint for a down syndrome. Proceedings of the 26th Conference International Society of Biomechanics in Sports, Seoul National University, Seoul, Republic of Korea, July 14-18th, 2008
 36. Lim BO, Ja KU, Kim SB, Lee SW, Park YH, O'Sullivan D, Choi CS, Lee KK. The Effects of a
- 36. Lim BO, Ja KU, Kim SB, Lee SW, Park YH, O'Sullivan D, Choi CS, Lee KK. The Effects of a Knee Brace on the ACL Loads in High School Female Basketball Players. J. Biomech 2007; 40; Supp 2: S2755

INIVI	ΓED LECTURES/ SEMINARS
2018	Physical Activity and Old Age - from the perspective of a sport scientist at International Conference for Nursing in Preparation for the 4trh Industrial Revolution at Gyeongsang National University, Rep. of Korea
20172016	Fitness and Wellness – Pusan National University Cultural Center Technical Assessments in Para-Taekwondo – International Education Seminar for level 1 International Classification Certificate
2015	Keynote lecture at the Joint FU & PNU international seminar, January 25th, 2016, Fukuoka University, Japan
2013	Cultural Industry R&D Trends, December 6 & 7th, 2015, NRF Korea and Swiss Science days, 6th Korean-Swiss Science Days UCD Bioengineering Seminar Series: Head injuries in Taekwondo – The story so far, University of College Dublin, Dublin, Republic of Ireland
2013	Taekwondo Training Methods, World taekwondo Federation Coaching Seminar, Busan, Republic of Korea Motion Capture Analysis - Its applications in the field of physical therapy, Hallym University, Republic of Korea Biomechanics - Equipment and its applications in areas of research, Hallym University, Republic of Korea The Use of Electromyography - Data Collection and Analysis, Hallym University, Republic of Korea
2012	Motion Capture Analysis - Visual 3D workshop, Hallym University, Republic of Korea
20112010	Research in Sports Biomechanics, Kyonggi University, Republic of Korea
_010	Two day seminar - Introduction to Motional Analysis and Riomechanical Systems Korean

Two day seminar - Introduction to Motional Analysis and Biomechanical Systems, Korean Occupational Safety and Health Authority, Republic of Korea

2009

Motion Capture and Analysis - Using BTS system, Keimyung University, Republic of Korea

PROFESSIONAL EXPERIENCE

2014- Present

Associate Professor – Pusan National University, Division of Sports Science,

2009-2014

Assistant Professor – Chung-Ang University, Department of Physical Education, College of Sport Science (March 1st, 2009 until present)

2008

Biomechanics Laboratory Director, Department of Physical Education, College of Education, Seoul National University.(January 1st 2008 – December 31st 2008)

AWARDS

Young Investigator Award – Best Poster Presentation. 2012 International Convention on Science, Education & Medicine in Sport. Scottish Exhibition & Conference Centre, Glasgow, United Kingdom, July 19-24, 2012.

2010 Delaware Health Sciences Alliance – Third Place, Poster Session. 2010 DHSA Research Conference, University of Delaware, May 4, 2010.

Student Evaluated Top Sport Science Lecturer in Chung-Ang University from 2010-2013

PROFESSIONAL ORGANIZATIONS

2006

Member of the Korean Society of Sports Biomechanics.

2008

Member of the International Society of Biomechanics in Sport

SIMULTANEOUS INTERPRETER VOLUNTEER EXPERIENCE (ENGLISH & KOREAN)

2012

The Trends and Perspectives of Sport Science, Institute of Information and Technology, Chung-Ang University.

2011

Interpreter between Dr Gerry Jefferes (Lecturer and Leader School Guidance and Counselling Programmes, Education Department, National University of Ireland Maynooth, Kildare, Ireland) and Dr Kibong Lee (National Youth Policy Institute, Republic of Korea).

2008

26th Conference International Society of Biomechanics in Sports, Seoul National University, Seoul, Republic of Korea, July 14-18, 2008.

OTHER PROFESSIONAL ACTIVITIES

Moderator:

2013

Korean Alliance of Martial Arts International Seminar: Globalization According to Academic Fusion of Martial Arts, DongA University, Busan, Rep of Korea

2012

The Trends and Perspectives of Sport Science, Institute of Information and Technology, Chung-Ang University

2012

Northeast Asia Conference on Kinesiology, Seoul National University of Education, Seoul, Republic of Korea, May 18-21, 2012.

Manuscript Reviewer:

Sports Biomechanics Journal of Sports Sciences

PLOS ONE Gait & Posture

Journal of Applied Biomechanics
Journal of Aging and Physical Activity
Research in Developmental Disabilities
Disability and Rehabilitation International Sport Med Journal

Journal of Physical Therapy Science International Journal of Sports Medicine

Biology of Sport Archives of Budo

Korean Journal of Studies of Physical Education

Korean Journal of Physical Medicine

Korean Journal of Martial Arts

MEDIA APPEARANCES

Spanish Taekwondo Federation

Feature story on research project conducted with international collaborators at a Spanish Taekwondo Federation national training camp. "Stage FET – Investigación". Federación Española de Taekwondo". August 25, 2010.

Professor O'Sullivan becomes Member for the World Taekwondo Federation Para-Taekwondo Committee (데이빗 오설리반 교수, 세계태권도연맹 장애인태권도위원회 위원 선임)

 $http://news.cau.ac.kr/bbs/people_view.php?page=1\&s_key=\&s_word=\&list_size=20\&sorting=new\&idx=308$

World Taekwondo Federation Para-Taekwondo Committee Visit Russia for Research (장애인태권도 연구 위해 러시아 방문)

http://news.cau.ac.kr/bbs/news_view.php?idx=3051

Russian Paralympic Committee News Report

Pavel Rozkhov, Lev Seleznev and Andrey Strokin meet with Jacobus Andriaan Engelbrecht the President of the World Taekwondo (WTF) and European Taekwondo Union at the headquarters of the Russian Paralympic Committee in Moscow, Russia.

http://www.paralymp.ru/news_en/news.php?id=820

Russia is a hosting country for the 2 Stage of WTF Research

http://www.paratkd.com/8-main-blog/90-russia-is-a-hosting-country-for-the-2-stage-of-wtf-recearch

Meeting at Russian Paralympic Committee

http://www.paratkd.com/8-main-blog/91-meeting-at-russian-paralympic-committee

Meeting with para-athletes and coaches

http://www.paratkd.com/8-main-blog/92-meeting-with-para-athletes-and-coaches

Appreciation to athletes and coaches

http://www.paratkd.com/8-main-blog/93-appreciation-to-athletes-and-coaches

Prof O'Sullivan meets with the International Paralympic Committee Sport Science Committee at Sochi, 2014 Paralympics (오 설리반 교수, 장애인태권도 연구 소개 차 소치 패럼림픽 방분) http://news.cau.ac.kr/bbs/news_view.php?idx=3119

PROFESSIONAL REFERENCES

Insik Shin, Ph.D., Professor, Seoul National University Sports Biomechanics Course & Laboratory Director 1 Gwanak-ro, Gwanak-gu, Seoul 151-742 +82-10- 6285-1155 (mobile) isshin@snu.ac.kr

Willy Pieter, Ph.D., Professor, Faculty of Sports Studies, Masaryk University, Kamenice 126/3, 625 00, Brno, Czech Republic +31-6-2130-0612 (mobile) taishan802@gmail.com

Scott Selbie, Ph.D. C-Motion, Inc. 20030 Century Blvd, Suite 104A Germantown, MD 20874 +1-301-540-5611 (telephone) +1-301-540-5613 (fax) selbie@c-motion.com

John Monaghan, Ph.D, Professor (Fellow Emeritus), Trinity College Dublin Department of Mechanical and Manufacturing Engineering Trinity College Dublin, College Green, Dublin 2 +353-1-896-1464 (telephone) john.monaghan@tcd.ie

Kikwang Lee, Ph.D. Professor, Kookmin University Department of Physical Education 77 Jeongneung-ro, Seongbuk-gu, Seoul, 136-702 +82-10-4911-3399 (mobile) kklee@kookmin.ac.kr