

CV

Atsushi KAWAGUCHI MD PhD

April 2019

SUMMARY

Section I- Personal information

Section II- Education, diplomas, continuing medical education, experience

Section III- Teaching activities

Section IV- Research activities

Section V- Contribution to institutions (administration)

Section VI- Contribution to the scientific community

Section I- Personal information

Atsushi KAWAGUCHI
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Section II- Education, diplomas, academic career, continuing medical education, experience

Education and Diplomas

| | |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1997- 2003 | Medical School training at Osaka University, Osaka Japan. |
| 2003 | Doctor of Medicine (M.D.) awarded, Osaka University. |
| 2010 | Biostatistics (non-diploma course), National Institute of Public Health, Saitama Japan |
| 2011 | Specialty Board of Pediatrics, Japanese Society of Pediatrics |
| 2012 | ECMFG Certification, United States Medical License Examination |
| 2015 | Board of Critical Care Medicine, Japanese Society of Intensive Care Medicine Certification Number: 160045 Certification of Supervisory Physician of Pediatrics, Japanese Pediatrics Society |
| 2017 | Alberta Medical License (Provincial Independent Practice Licensure), CPSA Registration Number: 017583 |
| 2018 | Ontario Medical License (Provincial Independent Practice Licensure), CPSO Registration Number: 117027 |
| 2013-2018 | Ph.D. in Epidemiology, School of Public Health, University of Alberta, Canada |
| 2018- | Postdoctoral Research Scholar, CHU Sainte Justine Research centre, Universite de Montreal, Montreal Canada |

Medical Practice

| | |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 2003-2005 | Resident, Pediatrics, Anesthesiology and Emergency Medicine Kobe City Medical Centre General Hospital, Hyogo, Japan |
| 2005-2007 | Senior Resident, Department of Pediatrics, Kurashiki Central Hospital, Okayama, Japan |
| 2007-2010 | Clinical Fellow, Pediatric Critical Care Medicine, Shizuoka Children's Hospital, Shizuoka, Japan |
| 2010 | Consultant, Pediatric Emergency and Intensive Care Center Tokyo Metropolitan Children's Medical Center, Tokyo, Japan |
| 2011-2013 | Clinical Fellow, Pediatric Critical Care Medicine University of Alberta, Stollery Children's Hospital, Alberta, Canada |
| 2013-2018 | Clinical Associate, Pediatric Critical Care Medicine University of Alberta, Stollery Children's Hospital, Alberta, Canada |
| 2018- | Clinical Associate, Pediatric Critical Care Medicine University of Ottawa, Children's Hospital of Eastern Ontario, Ottawa, Canada |

Academic Career

- 2010** Research fellow, Department of Global Health Policy
Graduate School of Medicine, University of Tokyo, Tokyo, Japan.
- 2013-2017** Clinical Research Fellow, Pediatric Critical Care Medicine
University of Alberta, Stollery Children's Hospital, Alberta, Canada
- 2018-** Assistant professor, Department of Pediatrics,
Division of Pediatric Critical Care Medicine, University of Ottawa,
Ottawa, Canada
- 2018-** Postdoctoral Research Scholar, CHU Sainte Justine Research centre,
Universite de Montreal, Montreal Canada

Bursaries, Awards during Scholarships

- 2015** The Garner King Award (Best Clinical or Quality Improvement Study):
Canadian Critical Care Society,
<http://www.criticalcarecanada.com/program/research-awards-2015/>
- 2014, 16** FGSR Graduate Travel Awards, University of Alberta (C\$4,000.00)
- 2015** Graduate Student Travel Award, Women and Children's Health Research
Institute (C\$1,000.00)
- 2017** The Best Presentation Award of Pediatric, Department of Pediatrics in
University of Alberta. <https://www.ualberta.ca/pediatrics/pediatric-research/pediatric-research-day>
- 2015-2017** Graduate Studentship Award, Women's and Children's health Research
Institute (C\$ 24,000.00 yearly (for two years))
- 2018-2020** Postdoctoral Research Scholar Award, Fonds de Recherche Santé.
Programme de bourse de formation postdoctorale pour les candidates non
domicilies au Quebec. (C\$ 90,000 per 2years 2018-2020); "Long-term
mechanical ventilation in pediatric intensive care: international
prevalence study and evaluation of a new ventilatory modality."
<http://www.frqs.gouv.qc.ca/en/bourses-et-subventions>

Continuing Medical Education

- 2010-** Instructor, Pediatric Fundamental Critical Care Support, , Society of Critical
Care Medicine, USA
- 2007-** Instructor, Japanese Advanced Trauma Evaluation and Care
- 2004-** Provider, Pediatric Advanced Life Support Provider, Basic Life Support,
American/Canadian Heart Association, American/Canadian Heart Association
- 2016** REDCap® Training courses (Women & Children's Health Research institute)

Attendance at Scientific Conferences

At least one national congress and 2 international congresses a year.

Reserch Training Courses

Doctor of Philosophy in Public Health Sciences (University of Alberta)

Graduate Level of Course Credits

| | | | |
|-----------|------------------------------------------------------|-------------|------|
| - PHS 598 | Biostatistics I | Summer Term | 2013 |
| - PHS 698 | Biostatistics II | Winter Term | 2014 |
| - SPH 719 | Biostatistics III | Fall Term | 2014 |
| - PHS 596 | Epidemiology Methods I | Fall Term | 2013 |
| - PHS 696 | Epidemiology Methods II | Winter Term | 2014 |
| - SPH 766 | Advanced Epidemiology Methods (Epidemiology III) | Fall Term | 2014 |
| - PHS 604 | Advanced Theory and Research | Fall Term | 2013 |
| - PHS 607 | Introduction to Engaged Scholarship | Fall Term | 2013 |
| - PHS 608 | Applied Engaged Scholarship | Winter Term | 2014 |
| - SPH 603 | Scientific Communication in Public Health | Winter Term | 2015 |
| - SPH 693 | Critical Appraisal of the Health Sciences Literature | Winter Term | 2015 |

Section III- Teaching Activities

Teaching activities are focused on pediatric and pediatric intensive care

In the Clinical Setting:

I teach the following students:

- Medical Students since 2013
- Residents since 2013
- Fellows since 2013, 1-2 sessions per year, Clinical epidemiological research method

Other Teaching Activities:

- “Development of Pediatric Critical Care in Japan and Canada”, lecture presentation at Fukuyama National Medical Center, Hiroshima Japan (Visiting Lecturer, Jul 2017)
- “Clinical Epidemiology: How we should start” lecture presentation at Kurashiki Central Hospital (Visiting Lecturer, Aug 2014)
- “Pediatric Airway Management” lecture presentation at Nagano Children’s Hospital, Nagano, Japan (Visiting Lecturer, Apr 2012)
- “Pediatric Critical Care and Medical Emergency Team” lecture presentation at Kurashiki Central Hospital, Okayama, Japan (Visiting Lecturer, Aug 2010)

Section V- Research and Erudition

A) Most Important Contributions:

I have been engaging in a variety of research program in pediatrics and pediatric critical care. Particularly, one of my research focuses has been in respiratory management in critical care. I am currently leading an international large epidemiological study of prolonged mechanical ventilated children in PICU (<http://appdev2.crc.chus.qc.ca>), which has been supported by several funding agencies including respiratory health network in Quebec. This research program ultimately aims to reveal the healthcare burden in critical care setting and provide better care for those children. This project includes four ancillary studies and several posthoc studies, which will result in at least ten peer review papers.

Throughout my clinical and academic career, I have also been conducting studies regarding applied novel respiratory technologies in critical care (i.e., heated humidified high flow nasal cannula therapy (HHHFNC), airway pressure release ventilation, a non-invasive oscillating device for airway clearance, electric impedance tomography, neurally adjusted ventilatory assist and electrical activity of the diaphragm). I have published several peer-review publications and book chapters in this field. One of my recent studies about heated humidified high flow nasal cannula therapy was selected as one of the five most cited studies in pediatric critical care medicine and won the best clinical research award in Canadian Critical Care Society in 2017. Recently, I have conducted a large multinational cross-sectional study exploring the views on HHHFNC in pediatric critical care physicians, collaborated with international investigators (under peer review in *Pediatrics* as of 2019 April).

Another my research theme has been on critical care transport and the retrieval system (<https://era.library.ualberta.ca/items/197333c0-5dd5-43b6-b378-31982ec2a7bc>). The part of my works has been done during my PhD graduate study and resulted in six peer review publications and several lectures. I have recently completed an Alberta provincial-wide project looking at the quality of pediatric critical care remote patient triage. Those studies have resulted in the reconstruction and the improvement of the transport system in Alberta through the active knowledge translation. As an extension, I am currently involving in a project of building a data integration system in medical transport environment, led by *STAR-ISONEO Inc.* as an critical care clinical expertise. This project is expected not only to improve patient management during transport in Quebec, but the fundamental process to create seamless patient care and data management/sharing infrastructure in the province and Canada.

On top of those academic themes, I am supervising several medical students and residents of their research projects as a co-supervisor with Drs. Jouvét and Emeriaud, particularly as an expert of epidemiology and biostatistics. I believe, considering the complexity of contemporary clinical studies and the importance of understanding of the fundamental aspects of them, this will be a valuable educational opportunity for the trainees.

B) Research Projects, Bursaries and Grants

1) Salary Awards Support

- | | |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2015-2017 | Graduate Studentship Award, Women's and Children's health Research Institute, (C\$ 48,000) |
| 2015 | Research Assistantship, Strategic Project: School of Public Health and Dep. of Ophthalmology and Visual Science, University of Alberta (Prof. Kue Young) (C\$4,000 per project) |

- 2014-2018** Research Assistantship Award, Alberta Machine Intelligence Institute (AMII)
(C\$50,000 per yearly)
- 2018-2020** FRQS Postdoctoral Research Scholar Award. Programme de bourse de formation postdoctorale pour les candidates non domiciliées au Québec. (C\$ 90,000)

2) Research Projects Funded by Organisms

Grant Obtained

Title of proposal: Prolonged Mechanical Ventilation in Pediatric Critical Care: An international Point Prevalence Study

Funding source: Clinical/Community Research Integration Support Program (CRISP) Grant, Women Children Health Research Institute

Total amount: C\$20,000

Support period: 2018-2020

Principal Applicant: Gonzalo Guerra, Atsushi Kawaguchi

Role: Co-PI

Title of proposal: Evaluation of workforce in Japanese Intensivist

Funding source: Japanese Society of Intensive and Critical Care Medicine

Total amount: C\$10,000 (Convert JPN Yen to C\$)

Support period: 11/09 au 12/07

Principal Applicant: Soichiro Nagamatsu

Co-investigators : 5

Title of proposal: Surveillance of Pediatric Ventilator Associate Pneumonia and Events in Japan

Funding source: from Clinical Research Center in St Luke's International University, Tokyo Japan

Total amount: C\$10,000 (Convert JPN Yen to C\$)

Support period: 16/04 au 17/03

Principal Applicant: Yusuke Ito, Atsushi Kawaguchi

Co-investigators: 3

Under Final Review

Title of proposal: Dégagement des voies respiratoires à l'aide d'un dispositif oscillant non invasif chez des enfants gravement malades.

Funding source: MEDTEQ, Collaborating with industry (Dymedso, Montreal Canada)

Principal Applicant: Philippe Jovet

Role: Co-PI

Title of proposal: Prolonged Mechanical Ventilation in Pediatric Critical Care: An international Point Prevalence Study

Funding source: Réseau mère-enfant de la francophonie

Principal Applicant: Philippe Jovet

Role: Co-PI

C) Publications

1) Book Chapters

1. Kawaguchi “Artificial Intelligence in Pediatric Critical Care” Igakutosho Shupan (2019) ICU and CCU, K Tanabe et al. http://www.igakutosho.co.jp/magazine/icu_ccu/2019/zi4302.html
2. Kawaguchi and P. Jouvét. Pediatric Acute Respiratory Distress Syndrome: Imaging and Monitoring in PARDS: 2019 © *Springer Nature*, Switzerland (Under proofread)
3. Kawaguchi “Pediatric Sepsis.” Author of chapters (2019). Jun Sasaki et al. (In Japanese) Japan Medical Journal. <https://www.jmedj.co.jp/book/search/detail.php?id=1854>
4. Kawaguchi “Inhale Nitric Oxide: Practical Pearls In Pediatric Respiratory Care” author of the chapter (2016). I Ueta, et al. Emergency and Critical Care (Kyukyū Shūchū Chiryō) Vol28 No9.10, 771-779. <http://www.sogo-igaku.co.jp/eshopdo/refer/vid647.html>
5. Kawaguchi “Clinical Training in Canada.” author of a chapter (2015). T. Sato, N. Nakagawa, et al. Clinical Training in the United States, You Can Do It (In Japanese). 4th Edition: 24-28. Nanzan-do. <http://www.nanzando.com/books/03004.php>
6. Kawaguchi “Airway Pressure Release Ventilation.” author of the chapter (2013, 2016). I. Ueta. Pediatric Respiratory Management (In Japanese). 2nd and 3rd Edition: 86-89. Sogo Igaku-Sha. <http://www.sogo-igaku.co.jp/eshopdo/refer/vid544.html>
7. Kawaguchi “Pediatric End-of-Life Care.” chapter writer (2012). S. Fujitani et al. INTENSIVIST (In Japanese). 1(4): 113-120. Medical Science International. <http://www.medsj.co.jp/intensivist/>
8. Kawaguchi “Airway Pressure Release Ventilation.” chapter writer (2010). I. Ueta. Emergency and Critical Care (In Japanese). (22): 354-62. Sogo Igaku-Sha

2) Publications in Peer-Reviewed Journals

Submitted Papers

1. Kawaguchi, D. Garros, A. Joffe, DeCaen Allan, M. Pons Odena, A. Schibler, N. Thomas, S. Udani, M. Takeuchi, José C. Junior, R. Padmanabhan. “High Flow Nasal Cannula Therapy in Critically Ill Children : An International Questionnaire Survey” (Submitted to *Pediatric Critical Care Medicine*. Percentage of Contribution: 80%)
2. Kawaguchi, A. DeCaen, “Remote Triage in Paediatric Critical Care; A Canadian Provincial-Wide Cohort Study” (Submitted to *Pediatric Emergency Care 2019 March*). Percentage of Contribution: 80% (Percent of Contribution: 80%)
3. J. Hanot, A. Kawaguchi, D. Garros. “The Use of High Flow Nasal Cannula for Status Asthmaticus in the Pediatric Intensive Care Unit – A Descriptive Study” (Submitted Aug 2018, *Jornal de Pediatria*) (Percentage of Contribution: 50%)
4. Olivier Fléchelles, Atsushi Kawaguchi, Robert Fowler, Raymond Césaire, Philippe Jouvét, for the Pediatric Canadian Critical Care Trials Group H1N1. “Pandemic influenza 2009: did we have a third Influenza A (H1N1)pdm09 wave in Canada?” (Submitted to *Plos One*, August 2018)

Published/Accepted Papers

1. Kawaguchi, D. Saunders, Y. Yasui, A. DeCaen, "Effects of Medical Transport On Outcomes in Children Requiring Intensive Care" (Accepted *Journal of Intensive Care Medicine* in August 2018) (Percentage of Contribution: 90%)
2. Kawaguchi, N. Sharafeldin, K. Damji, et al. "" (Accepted March 2018, *British Journal of Ophthalmology*) (Percentage of Contribution: 70%)
3. (Accepted April 2018, *Journal of Japan Pediatric Society*) (Percentage of Contribution: 90%)
4. Kawaguchi, C. Nielsen, D. Saunders, Y. Yasui, A. DeCaen, "Impact of Physician-less Pediatric Critical Care Transport: Making a Decision on Transport With or Without a Physician" *J Crit Care*. 2018 Mar 20; 45: 209-214. (Percentage of Contribution: 90%)
5. Kawaguchi, C. Nielsen, D. Saunders, Y. Yasui, A. DeCaen, "Epidemiology of Pediatric Critical Care Transport in Northern Alberta and the Western Arctic" *Pediatr Crit Care Med*. 2018 Feb 5. doi: 10.1097/PCC.0000000000001491. [Epub ahead of print] (Percentage of Contribution: 90%)
6. Kawaguchi, A Bates, B Lee, S Drews, D Garros, "" *Acta Paediatr*. 2018 Mar;107(3):504-510. doi: 10.1111/apa.14148. Epub 2017 Dec 5. (Percentage of Contribution: 90%)
7. Kawaguchi, A. deCaen, "Need of Data Collection in the pre-PICU setting for Transport Research" *Pediatr Crit Care Med*. 2018 Mar;19(3):279. doi: 10.1097/PCC.0000000000001441. (Percentage of Contribution: 100%)
8. Kawaguchi, N. Sharafeldin, K. Damji, et al. "Tele-Ophthalmology for Age-Related Macular Degeneration and Diabetic Retinopathy Screening: A Systematic Review and Meta-Analysis"
9. *Ophthalmology. Telemed J EHealth*. 2017 Aug 7. [Epub ahead of print] (Percentage of Contribution: 70%)
10. Kawaguchi, Y Yasui, D Garros, "The Clinical Impact of High Flow Nasal Cannula on Pediatric Respiratory Distress." *Pediatr Crit Care Med* 2017 Feb;18(2):112-119 (Percentage of Contribution: 90%)
11. Y. Kondo, J. Kumasawa, A. Kawaguchi, et al. "Effect of Non-Invasive Ventilation in Patients Presenting with Acute Respiratory Failure: A Review and Meta-Analysis" *Journal Anesth*. 2017 Oct;31(5):714-725. (Percentage of Contribution: 30%)
12. Kawaguchi, A Gunz, A deCaen, "Cross-Sectional Survey of Canadian Pediatric Critical Care Transport" *Pediatr Emerg Care*. 2016 Aug 20. [Epub ahead of print] (Percentage of Contribution: 90%)
13. Moriichi, D. Yoneoka, Y. Kobayashi, E. Ota, A. Kawaguchi, "The effectiveness and safety of various methods of post-pyloric feeding tube placement and verification in infants and children" *The Cochrane Library*, Protocol Published, June 2016. (Percentage of Contribution: 50%)
14. Kawaguchi, Q. Liu, S. Coquet, Y Yasui, D Cave. "Impact and challenges of a policy change to early track extubation in the operating room for Fontan" *Pediatr Cardiol*. 2016 Aug; 37(6): 1127-36. (Percentage of Contribution: 90%)
15. Kawaguchi, D. Cave, Q Liu, Y. Yasui. "Development of a model identifying Fontan patients at high risk for failed early extubation in the operating room." *The Thoracic and Cardiovascular Surgeon*. 5 Vol 63 July 2015. (Percentage of Contribution: 90%)
16. Kawaguchi, A. Joffe. Nebulized epinephrine for croup in children: Evidence for Clinicians. *Paediatr Child Health*. Vol 20 (1), 2015: 19-20. (Percentage of Contribution: 90%)
17. Kawaguchi, G. Guerra, J. Duff, et al. Hemodynamic Changes in Child Acute Respiratory Distress Syndrome with Airway Pressure Release Ventilation, A Case Series. *Clin Respir J*. 2015 Oct; 9(4): 423-9. (Percentage of Contribution: 90%)
18. S. Nagamatsu, A. Kawaguchi, et al.; "Factors associated with the success of the Japanese Society of Intensive Care Medicine Board Certification examination in 2008-2012" *J Jpn Soc Intensive Care Med* 2014; 21:205-212. (Percentage of Contribution: 30%)

19. M. Kasai, N. Shime, A. Kawaguchi, et al.; “Investigating blood culture collection in Japanese pediatric intensive care units”, *J Jap Pediatric Society*, Vol.117, No.1, Jan 2014, 21:55-56. (Percentage of Contribution: 20%)
20. Kawaguchi, R. Mori, Y. Yang, H. Minami, M. Tamura; “Hydralazine in infants with persistent hypoxemic respiratory failure” *Cochrane Systematic Review, Cochrane Library*, Issue 13 Jan 13, 2013. (Percentage of Contribution: 90%)
21. Kawaguchi, N. Shime et al.; “Workforce Surveillance of Pediatric Intensive Care in Japan”, *J Jpn Soc Intensive Care Med* 2013; 20:671-8. (Percentage of Contribution: 90%)
22. Issac, A. Kawaguchi et al.; “Sand Aspiration in a children, Extracorporeal Membrane Oxygenation as a new management tool”, *Journal of Pediatric Surgery Care Report*. Vol1 (9), 2013, 273-276. (Percentage of Contribution: 60%)
23. S. Nagamatsu, A. Kawaguchi, T. Miki, et al.; “Distribution and Specialty of Japanese Critical Care Physician”, *J Japanese Society of Intensive Care Medicine*, 19, 97-98, 2012, in Japanese and English abstract. (Percentage of Contribution: 30%)
24. Kawaguchi, R. Mori, “Review of Cochrane Review for WHO Reproductive Health Library ‘In-service training for health professionals to improve care of the seriously ill newborn or child in low and middle-income countries’” *WHO Reproductive Health Library* Vol. 13, 2011. (Percentage of Contribution: 90%)
25. Kawaguchi, K. Waki, Y. Arakaki, K. Baba, “Huge Aneurysms of the Aortic Sinuses of Valsalva with leaflet perforation in an Infant” *J Thorac Cardiovasc Surg* 2010;139: e54-e56. (Percentage of Contribution: 90%)
26. Kawaguchi, S. Watabe, K. Baba et al, “Successful Diazepam Treatment for Seizure of Neonatal Nonketotic Hyperglycinemia” *J Jap Pediatric Society* Vol.111, No12, Dec2007 1592-97 (Japanese). (Percentage of Contribution: 90%)
27. Kawaguchi, K Yura, S. Watabe, K. Baba et al, “Antenatal Haemolytic anemia of Glucose-6-phosphate dehydrogenase deficiency” *J Jap Perinatal and Neonatal Med* Vol43, No1 2008 148-51 (Japanese). (Percentage of Contribution: 90%)

3) Publications in NON Peer-Reviewed Journals

1. Pediatric Fundamental Critical Care Support. (2015). Society of Critical Care Medicine, Chapter translator. Chapter 21 (pp1-15). Medical Science International.
https://www.medsj.co.jp/books/products/detail.php?product_id=3431
2. Survival Sepsis Campaign, 2012. Critical Care Medicine. (2013): 613-619. Published, Society of Critical Care Medicine, Translator of A Chapters (Chapter “Pediatrics”).

Citations (extract from Google Scholar)

Web Site:

https://scholar.google.com/citations?hl=en&view_op=list_works&gmla=AJsN-F6BgBaZEtZ_VRk4PzdZ1Wb1IDb4R_LedQTztODLkMQoarpXj-Fqa4Ft-y2upZbQlByrr0mjpl1GMVBggTKqnm0ia_ofVA&user=KFwPJwAAAAJ

Summary : Update April 2019

| | All | Since 2014 |
|-----------|-----|------------|
| Citations | 141 | 139 |
| h-index | 6 | 6 |
| i10-index | 3 | 3 |

Section VI- Contribution to Institutions/Societies

1) Japanese Society of Intensive Care Medicine

Working Group of Clinical Practice Guidelines

- 2015-2016 Acute Respiratory Distress Syndrome Guideline (2016). Japanese Society of Intensive and Critical Care Medicine, Japanese Respiratory Society, and Japanese Society of Respiratory Care Medicine. Co-author of 3 Chapters, Associate Systematic Reviewer for 6 Research Questions.
- 2019-2021 Working Group Member, Japanese Survival Sepsis Campaign Guideline.

Translation Work

- 2015 Pediatric Fundamental Critical Care Support. (2015). Society of Critical Care Medicine, Chapter translator. Chapter 21 (pp1-15). Medical Science International.
https://www.medsj.co.jp/books/products/detail.php?product_id=3431
- 2013 Survival Sepsis Campaign, 2012. Critical Care Medicine. (2013): 613-619. Published, Society of Critical Care Medicine, Translator of A Chapters (Chapter “Pediatrics”).

Committee Membership

- 2014 - 2016 Committee for clinical practice guideline in Acute Respiratory Distress Syndrome, Japanese Society of Intensive and Critical Care Medicine
- 2010 - 2014 Committee on Work Force Evaluation, Japanese Society of Intensive and Critical Care Medicine, Member of a working group for evaluation of workforce in Japanese Intensivist.

2) Public Activities

- 2014- Education and Research Network in Japanese Pediatric Critical Care: Launched in 2014. INSPIRED (Innovative Support of Pediatric Intensive Care and Education).
- 2013 Medical Mission/Volunteer works at Iwate prefecture (A National Project of the Tohoku Great Earthquake), Tohoku Japan.
- 2011- Member of the research group for Child Death Review in Japan.
- 2011- Writing magazine column, Nikkei Medical Online,
<http://medical.nikkeibp.co.jp/inc/all/blog/kurofunet/akawaguchi/>
- 2000 Internship in Asia Medical Doctor Association: Research of public health and volunteer works, Siddhartha Children and Women’s Hospital, Butwal, Nepal.

Section VII- Notability/Repute

A) Presentations as an invited speaker at a scientific meeting (year, talk title, scientific meeting, town, month) *as an invited speaker

1. “Prolonged Mechanical Ventilation in Pediatric Intensive Care: An International Cross-Sectional Prevalence Study”, Presenter (Poster) 21st Annual Congress of Respiratory Health Network in Quebec, December, Montreal Canada 2018
2. * “Working as an academic pediatric intensivist in an abroad”, (Oral, Invited) 26th Annual Congress of Japanese Society of Intensive and Critical Care, Kyoto Japan, Oct 2018.
3. “Prolonged Mechanical Ventilation in Pediatric Intensive Care: An International Cross-Sectional Prevalence Study”, Presenter (Oral), 32th Pediatric Acute Lung Injury and Sepsis Investigator Meeting, Boston. Sep 2018
4. “Impact of Physician-less Pediatric Critical Care Transport and Information Used in Making a Decision on Transport With or Without a Physician” 45nd Annual Meeting of Japanese Society of Intensive and Critical Care Medicine (Presenter Oral), Tokyo, Japan Feb 2018.
5. “Use of High Flow Nasal Cannula in Critically Ill Children: An International Questionnaire Survey” Presenter (Oral), International Pediatric Nasal High Flow Therapy Meeting (Selected), Washington DC, Dec 2017.
6. “Impact of Physician-less Pediatric Critical Care Transport and Information Used in Making a Decision on Transport With or Without a Physician?” Presenter (Poster) INSIGHT 2017, Edmonton Canada Nov 2017
7. “Impact of Physician-less Pediatric Critical Care Transport and Information Used in Making a Decision on Transport With or Without a Physician?”, Presenter (Oral Poster) Paediatric Intensive Care Society in the United Kingdom, 31st Annual Scientific Meeting, Nottingham UK Oct 2017
8. “Epidemiology of Pediatric Critical Care Transport in Northern Alberta and Western Arctic”, Presenter (Poster), Canadian Critical Care Forum 2018, Toronto Canada. Oct2017
9. “Use of Humidified Heated High Flow Nasal Cannula in Critically Ill Children: An International Questionnaire Survey” Presenter (Oral), Canadian Critical Care Trial Group Meeting, Toronto, Canada. Oct 2017
10. “Prolonged Mechanical Ventilation in Pediatric Intensive Care: An International Cross-Sectional Prevalence Study”, Presenter (Oral), Canadian Critical Care Trial Group Fall Meeting, 2017, Toronto, Canada. Oct 2017
11. “Prolonged Mechanical Ventilation in Pediatric Intensive Care: An International Cross-Sectional Prevalence Study”, Presenter (Oral), 30th Pediatric Acute Lung Injury and Sepsis Investigator Meeting, Montreal, Canada. Sep 2017
12. * “Indication of High Flow Nasal Cannula Therapy in Critically Ill Children” 39th Japanese Society of Respiratory Care Medicine, Annual Congress. (Invited, Presenter Oral), Tokyo, Japan. Jul 2017
13. * “Clinical guidelines and Cochrane Collaboration” 44nd Annual Meeting of Japanese Society of Intensive and Critical Care Medicine (Invited, Presenter Oral), Sapporo, Japan Mar 2017

14. * “Developing an Evidence-Informed Pediatric Retrieval System for Northern Alberta”, Japanese Society of Pediatric Intensive Care Medicine, 24th Annual Meeting. (Invited, Presenter Oral), Tokyo Japan. Oct 2016
15. “Development of PALISI group in Japan” 29th PALISI meeting, Invited Presenter Oral, Washington DC, USA. Sep 2016
16. “Cross-Sectional Survey of Canadian Pediatric Critical Care Transport.” American Academy of Pediatrics, Annual Congress, (Co-presenter), San Francisco, USA. Sep 2016
17. “Cross-Sectional Survey of Canadian Pediatric Critical Care Transport.” 8th World Congress Pediatric Intensive and Critical Care Medicine (Presenter, Poster), Toronto, Canada. Jun 2016
18. “Tele-Ophthalmology for Age-related Macular Degeneration and Diabetic Retinopathy Screening: Systematic Review and Meta-Analysis.” 1st International Congress of Rural Health (Presenter, Poster), Edmonton, Canada. May 2016
19. “Tele-Ophthalmology for Age-related Macular Degeneration and Diabetic Retinopathy Screening: Systematic Review and Meta-Analysis.” The Association for Research in Vision and Ophthalmology (ARVO) Annual Congress, (Co-presenter) Seattle, USA. May 2016
20. * “The Clinical Impact of Heated Humidified High Flow Nasal Cannula on Pediatric Respiratory Distress.” 43rd Annual Congress of Japanese Society of Intensive and Critical Care Medicine (Invited, Presenter Oral), Kobe, Japan. Jan 2016
21. “Impact and challenge of policy change to early track extubation in the operating room for Fontan”. 42nd Annual Meeting of Japanese Society of Intensive and Critical Care Medicine (Presenter Oral), Tokyo, Japan. Jan 2015
22. “Impact of High-Flow Nasal Cannula on Respiratory Distress in Pediatric Intensive Care.” Critical Care Canada Forum 2015, (Presenter, Oral) Toronto, Canada. Oct 2015
23. “Development of a model identifying Fontan patients at high risk for failed early extubation in the operating room” oral presentation, 7th World Congress on Pediatric Intensive and Critical Care, (Presenter, Oral), Istanbul, Turkey. May 2014
24. * “National Survey of Workforce of Pediatric Intensive Care in Japan” 40th Annual Meeting of Japanese Society of Intensive Care Medicine, (Invited, Presenter Oral) Nagano, Japan Mar 2013
25. “Development of a tool for identifying Fontan patients at risk of failed early extubation” WCHRI’s 5th annual Research Day, (Presenter Poster), Edmonton, Canada. Nov 2011
26. * “Airway Pressure Release Ventilation for children” 37th Annual Meeting of Japanese Society of Intensive Care Medicine, (Invited, Presenter Oral) Hiroshima, Japan. Mar 2010
27. “Airway Pressure Release Ventilation for Acute Respiratory Distress Syndrome in Pediatrics” 37th Annual Meeting of Japanese Society of Intensive Care Medicine, (Invited, Presenter Oral) Hiroshima, Japan. Mar 2010
28. “Airway Pressure Release Ventilation for Acute Respiratory Distress Syndrome in Pediatrics” Society of Critical Care Medicine’s 39th Annual Congress, (Presenter Poster) at Miami Beach, Florida, USA. Jan 2010

29. “Ventilatory Strategies for ARDS of Children” 36th Annual Meeting of Japanese Society of Intensive Care Medicine, (Presenter Oral), Osaka, Japan. Mar 2009
30. “The strategy of respiratory management of ARDS” 120th Sectional Meeting of Japanese Society of Pediatrics of Shizuoka (Presenter Oral), Hamamatsu, Japan. Nov 2008
31. “Case series of the patients using PICCO monitoring in PICU” 35th Annual Meeting of Japanese Society of Intensive Care Medicine (Presenter Oral), Tokyo, Japan. Mar 2008
32. “Novel ventilatory management of acute bronchiolitis of children” 30th Annual Meeting of Japan Society of Respiratory Care Medicine (Presenter Oral), Nagano, Japan. Jul 2008
33. “Balloon dilation of critical tracheostenosis, a case report” 43th Annual Congress of the Japan Society of Perinatal and Neonatal Medicine (Presenter Poster), Tokyo Japan. Jul 2007
34. “Case series of Tetralogy of Fallot rescued with phenylephrine use” 20th Annual Meeting of the Japanese Society of Emergency Pediatrics (Presenter Oral) Kagoshima, Japan. May 2007
35. “Antenatal Haemolytic anemia of Glucose-6-phosphate dehydrogenase deficiency 20th Annual Conference of Neonatology of Okayama (Presenter Oral), Okayama, Japan. Dec 2006
36. “Case series of Tetralogy of Fallot rescued with phenylephrine use” 10th Annual Research Conference of Pediatric Cardiology of West Japan (Presenter Oral) Kyoto Japan. Sep 2006
37. “A reversal TTTS of MD twin after FLP therapy” 42th Annual Congress of the Japan Society of Perinatal and Neonatal Medicine (Presenter Poster) Miyazaki Japan. Jul 2006
38. “Medical services system for pediatric emergency in Okayama” 20th Annual meeting of the Japanese Society of Emergency Pediatrics (Presenter Oral), Tsukuba Japan. Jun 2006
39. “A case report of rheumatic fever in Okayama” 109th Annual Meeting of the Japan Pediatric Society (Presenter Poster), Kanazawa Japan. Apr 2006
40. “An infant case of Nonketotic Hyperglycinemia” 50th Annual Meeting of Japan Society for Premature and Newborn Medicine (Presenter Poster) Nagoya Japan. Dec 2005
41. “A case of advanced neuroblastoma leading to death by early relapse in CNS” 47th Annual Meeting of the Japanese Society of Pediatric Hematology (Presenter Poster), Tochigi Japan. Nov 2005
42. “An extreme low body weight infant case of Sturge-Weber syndrome” 41th Annual Congress of the Japan Society of Perinatal and Neonatal Medicine (Presenter Oral), Fukuoka Japan. Jul 2005
43. “Two infant case of a rupture of chordae tendineae leading to acute cardiopulmonary failure” 19th Annual Meeting of the Japanese Society of Emergency Pediatrics (Presenter Oral), Sendai Japan. May 2005
44. “Two infant case of a rupture of chordae tendineae leading to acute cardiopulmonary failure” 19th Annual Sectional Meeting of Kinki (Presenter Oral), Kyoto Japan. Mar 2005
45. “Review of acute epiglottitis of tertiary hospital in Kobe” 235th Annual Sectional Meeting of Pediatrics of Hyogo (Presenter Oral), Amagasaki Japan. Feb 2005
46. “Indication of radiation therapy for nasal rhabdomyosarcoma” 20th Annual Congress of the Japanese Society of Pediatric Oncology (Presenter Poster), Kyoto Japan. Nov 2004

47. “Case series of newborn with abruptio placenta” 7th Annual Research Conference of Neonatology of Hyogo (Presenter Oral), Kobe Japan. Sep 2004
48. “Nasal Rhabdomyosarcoma ; gradual growing case” 233th Annual Sectional Meeting of Pediatrics of Hyogo (Presenter Oral), Kobe Japan. May 2004

B) Professional Expertize

1) Reviewer for Scientific Journals:

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|---------------------------------------------------|------------------|---------------------------------------|
| Pediatric International | ISSN: 1442-200X | Number of Works Reviewed/Refereed: 11 |
| JAMA Pediatrics | ISSN: 2168-6203 | Number of Works Reviewed/Refereed: 1 |
| Pediatr Crit Care Med | ISSN: 1529-7535 | Number of Works Reviewed/Refereed: 3 |
| Plos ONE | eISSN: 1932-6203 | Number of Works Reviewed/Refereed: 1 |
| American Journal of Respiratory and Critical Care | ISSN: 1073-449X | Number of Works Reviewed/Refereed: 1 |
| Respiratory Care | ISSN: 1943-3654 | Number of Works Reviewed/Refereed: 1 |
| Journal of Intensive Care | ISSN: 1525-1489 | Number of Works Reviewed/Refereed: 16 |
| Critical Care | ISSN: 1364-8535 | Number of Works Reviewed/Refereed: 1 |
| The Open Nursing Journal | ISSN: 1874-4346 | Number of Works Reviewed/Refereed: 1 |
| Journal of JSICM | ISSN: 1340-7988 | Number of Works Reviewed/Refereed: 6 |
| Jornal de Pediatria | ISSN: 0021-7557 | Number of Works Reviewed/Refereed: 1 |

2) Member of scientific societies

Member of Scientific Societies

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|---------------------------------------------------------------------------|----------------|
| Japanese Pediatric Society | 2003 - present |
| Japanese Society of Pediatric Intensive and Critical Care | 2003 - present |
| Japanese Society of Emergency Pediatrics | 2003 - present |
| Japanese Society of Intensive Care Medicine | 2007 - present |
| College of Physicians and Surgeons of Alberta (CPSA) | 2011 - present |
| Physician Credential Registry of Canada (PCRC), Registered | 2011 - present |
| Member of Cochrane Neonatal Group | 2011 - present |
| Member of Society of Critical Care Medicine (SCCM, USA) | 2012 - present |
| Physician Member, Canadian Critical Care Trial Group (Canada) | 2016 - present |
| Member, Canadian Public Health Association (Canada) | 2016 - present |
| Member, PALISI (Pediatric Acute Lung Injury & Sepsis Investigators) (USA) | 2016 - present |
| Member, European Society of Intensive Care Medicine (ESICM) | 2017 - present |
| College of Physicians and Surgeons of Ontario (CPSO) | 2018 - present |