## Otolaryngology-Head and Neck Surgery

Prof. Arata Horii, M.D., Ph.D.

We are responsible for medical treatments for any disease in all head and neck areas. We are also conducting varieties of stuies from neuroscience to oncology that relates to our area. Our departement consists of three groups: Otology and neurotology (O&N) group, rhinology and laryngo-pharyngology (R&LP) group, and Head and neck oncology (H&N) group.



## **Research and Clinical interests**

- O&N group: Clinical and basic research to develop new diagnosing batteries for Persistent Postural-Perceptual Dizziness (PPPD), sensory substitution: treatment for vestibular diseases, animal model of Otitis media with ANCA-associated vasculitis, central processing of auditory information in mice.
- 2. R&LP group: Biotherapy for chronic sinusitis with nasal polyps, olfactory dysfunction and cognitive disorders, globus sensation of the throat
- 3. H&N group: Molecular studies focused on cancer microenvironment and metastasis, supportive care for chemoradiotherapy, biotherapy for head and neck cancer

## Materials and methods for collaborations

- 1. Functional MRI in collaboration with Brain Research Institute of Niigata University.
- 2. Flavoprotein fluorescence imaging studies of mice (our lab.).
- 3. Molecular biological studies in collaboration with Molecular and Cellular Pathology department.
- 4. 3D-printed model for simulation surgery (our lab.)

## Links to additional info

- Diagnostic criteria for persistent postural-perceptual dizziness (PPPD): Consensus document of the committee for the Classification of Vestibular Disorders of the Barany Society. J Vestibular Res 27: 191-208, 2017 <u>https://content.iospress.com/articles/journal-of-vestibular-research/ves622</u>
- Creating an optimal 3D printed model for temporal bone dissection training. Ann Otol Rhinol Laryngol 126: 530-536, 2017
- Molecular diversity of clustered protocadherin-a required for executing higher cognitive functions in mice. Sci Rep 8: 9616, 2018 <u>https://www.nature.com/articles/s41598-018-28034-4</u>
- A validated questionnaire to assess the severity of persistent postural-perceptual dizziness (PPPD): The Niigata PPPD Questionnaire (NPQ). Otol Neurotol 40: e747-e752, 2019 https://insights.ovid.com/crossref?an=00129492-201908000-00028
- PLOD2 is essential to functional activation of integrin β1 for invasion/metastasis in head and neck squamous cell carcinomas. iScience 23, 100850, 2020

https://www.sciencedirect.com/science/article/pii/S258900422030033X?via%3Dihub