

<p>(ウイルス学) 白銀 勇太 講師</p> <p>連絡先: shirogane.yuta.528@m.kyushu-u.ac.jp</p>	<p>研究内容 私たちはウイルス感染症の発症機構を、分子生物学、細胞生物学、構造生物学、免疫学、動物モデルなど様々な手法を用いて解明し、病気の予防や治療に役立てることを目指している。現在、主に麻疹ウイルス、ムンプスウイルスに関して、ウイルスの細胞侵入機構、ウイルスの病原性発現機構、ウイルスの進化機構などの研究を行っている（詳しくは下記の最近の論文を参照のこと）。</p> <p>Shirogane Y et al. Cooperation between different RNA virus genomes produces a new phenotype. <i>Nature Communications</i>. 3:1235, 2012</p> <p>Shirogane Y et al. Weak cis and trans Interactions of the Hemagglutinin with Receptors Trigger Fusion Proteins of Neuropathogenic Measles Virus Isolates. <i>Journal of Virology</i>. 94(2). pii: e01727-19, 2020.</p> <p>Shirogane Y et al. CADM1 and CADM2 trigger neuropathogenic measles virus-mediated membrane fusion by acting in cis. <i>Journal of Virology</i>. 95(14) e0052821, 2021.</p> <p>Shirogane Y et al. Experimental and mathematical insights on the interactions between poliovirus and a defective interfering genome. <i>PLoS Pathogens</i>.17(9) e1009277, 2021</p> <p>Takemoto R, et al. Short-Stalk Isoforms of CADM1 and CADM2 Trigger Neuropathogenic Measles Virus-Mediated Membrane Fusion by Interacting with the Viral Hemagglutinin. <i>Journal of Virology</i>. 96(3):e0194921, 2022</p> <p>Shirogane Y, et al. Collective Fusion Activity Determines Neurotropism of an en Bloc Transmitted Enveloped Virus. <i>Science Advances</i> (in press)</p> <p>指導内容 (1) ウイルスの侵入と膜融合のメカニズム (2) 組換えウイルスを用いたウイルスの病原性の解析 (3) ウイルスの神経病原性のメカニズム (4) ウイルスの進化メカニズム</p>
<p>Department of Virology</p> <p>Assistant Professor Yuta Shirogane</p> <p>E-mail: shirogane.yuta.528@m.kyushu-u.ac.jp</p>	<p>Research Interests Our main research interest is to understand how viruses infect host cells and cause diseases. To this end, we are studying infections with measles virus and mumps virus using a variety of methods including molecular biology, cell biology, immunology and structural biology.</p> <p>Contents of Teaching/ Research Themes</p> <ol style="list-style-type: none"> 1. Mechanisms of virus entry and virus-induced membrane fusion 2. Viral pathogenesis as studied using reverse genetics 3. Mechanisms of virus neuropathogenicity 4. Mechanisms of virus evolution