

Prof. Yoneyama named as Thomson Reuters' Highly Cited Researcher

Professor Mitsutoshi Yoneyama in MMRC has been listed in Thomson Reuters' Highly Cited Researchers 2014 (<http://highlycited.com>). The list represents the world's most influential contemporary researchers in 21 research categories. About 3,200 researchers have been listed.

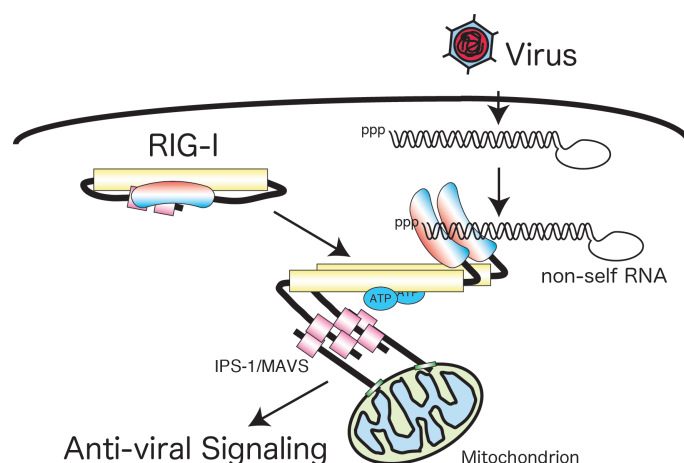
Prof. Yoneyama is in "Immunology" field with 87 researchers in the world including 19 Japanese.



Prof. M. Yoneyama

In 2004, Prof. Yoneyama and his colleagues identified Retinoic acid-inducible gene I (RIG-I), as a cytoplasmic viral RNA sensor molecule using expression screening technique, and demonstrated its essential role in anti-viral innate immunity (Nat Immunol, 2004). They further reported two family molecules, MDA5 and LGP2, are also expressed in mammalian cells and responsible for viral detection (J Immunol, 2005). These three molecules are known as RIG-I-like receptors (RLRs). In the subsequent decade, hundreds of scientists have entered this field and extensively analyzed the physiological significance of RLRs and the molecular machinery underlying recognition of foreign viral RNA and signal transduction by RLRs. The current model is illustrated in the Figure.

In MMRC, Prof. Yoneyama's group continues to work on i) the intracellular localization of RLRs in stress granules (SGs) and ii) the recognition of viral ribonucleoprotein complexes by RLRs. (<http://www.pf.chiba-u.ac.jp/eng/research/project/yoneyama.html>)



<Highly cited papers>

- 1) Yoneyama, M. et al., Nat. Immunol., 5, 730-7, 2004.
- 2) Yoneyama, M. et al., J. Immunol., 175 2851-8, 2005.
- 3) Kato, H. et al., Immunity, 23, 19-28, 2005.
- 4) Kato, H. et al., Nature, 441, 101-5, 2006.
- 5) Yoneyama, M. and Fujita T., Immunol. Rev., 29, 54-65, 2009.
- 6) Sato et al., Proc. Natl. Acad. Sci. USA., 1512-7, 2010.