

Ōmura Research Group (2017): Senior staff



Name: Yōko Takahashi

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Research specialty:

- Applied Microbiology
- Isolation and taxonomy of Actinomycetes
- Identification of new compounds produced by microorganisms

Publications (selected):

1. Y. Takahashi. (2017). Genus *Kitasatospora*, taxonomic features and diversity of secondary metabolites., *J. Antibiot.* **70**, 506-513.
2. Y. Takahashi. (2017). Continuing fascination of exploration in natural substances from microorganisms., *Biosc. Biotech. & Biochem.* **81**, 6-12.
3. T. Nakashima, T. Seki, A. Matsumoto, H. Miura, E. Sato, Y. Niwano, M. Kohno, S. Ōmura & Y. Takahashi. (2010). Generation of reactive oxygen species from conventional laboratory media., *J. Biosci. Bioeng.* **110**, 304-307.
4. Y. Takahashi. (2004). Exploitation of new microbial resources for bioactive compounds and discovery of new actinomycetes., *Actinomycetol.* **18**, 54-61.
5. Y. Takahashi & S. Ōmura. (2003). Isolation of new actinomycete strains for the screening of new bioactive compounds., *J. Gen. Appl. Microbiol.* **49**, 141-154.

Awards:

- 1988 Society for Actinomycetes, Japan: Research Encouragement Award
2004 Society for Actinomycetes, Japan Award.
2011 Sumiki-Umezawa Memorial Award

Comment: Actinomycete strains have high potential ability to produce useful novel new compounds. Using a new approach based on the features of compounds, our work has discovered: new compounds composed of an unprecedented structural skeleton; reactive oxygen species are generated from conventional laboratory media; new actinobacteria strains appear on agar media supplemented with radical scavengers. We have isolated and proposed new one Family, three new Genera and eight new Species using agar supplemented with SOD and catalase. We used PCR to confirm the new actinobacteria strains are widely distributed in various soils. Microbial resources are unlimited.