

1.

Sekiguchi, Mitsuhiro; Horiuchi, Mafumi; Tozawa, Yuta; Shigemori, Hideyuki
Seven undescribed meroterpenoids from *Sargassum siliquastrum* and their inhibitory activity
against amyloid β aggregation

Journal Of Natural Medicines (2024)

10.1007/s11418-024-01847-6

2.

Takahashi, Kohei; Takeda, Riku; Savage, Thomas Kouyou; Kataoka, Masahito; Yamamoto, Tatsuya;
Okabe, Satoshi; Nomura, Nobuhiko; Oshiki, Mamoru; Toyofuku, Masanori; TOKUNOU, Yoshihide
Membrane vesicles of *Shewanella oneidensis* MR-1 enhance denitrification growth in a species-specific
manner

bioRxiv (2024)

10.1101/2025.02.19.636751

3.

Son, Yongjun; Kim, Bitnara; Kim, Pureun; Min, Jihyeon; Park, Yerim; Yang, Jihye; Kim, Wonjae; Toyofuku,
Masanori; Park, Woojun

Unexpected vulnerability of *Enterococcus faecium* to polymyxin B under anaerobic condition

Gut Microbes (2024)

10.1080/19490976.2024.2438465

4.

Honma, Sota; Kimishima, Aoi; Kato, Satoshi; Horiuchi, Akari; Hokari, Rei; Honsho, Masako; Kojima,
Hiroki; Tokiwa, Toshiyuki; Sugawara, Akihiro; Iwatsuki, Masato; Araki, Yasuko; Takahashi, Tadashi;
Chinen, Takumi; Usui, Takeo; Ito, Kotaro; Asami, Yukihiro
The isolation of sclerotinin A as an anti-malarial compound by utilization of a global secondary metabolism
regulator, *laeA* gene

Bioorganic Medicinal Chemistry Letters (2024)

10.1016/j.bmcl.2024.129947

5.

Savage, Thomas Kouyou; Tsujimura, Seiya; Nomura, Nobuhiko; Toyofuku, Masanori; TOKUNOU,
Yoshihide

Electrocatalysis of Bacterial Membrane Vesicles

Chemrxiv (2024)

10.26434/chemrxiv-2024-wr63b

6.

Takeshita, Norio; Takashima, Yusuke; Degawa, Yousuke

Live imaging analysis of sexual and asexual reproduction, zygospore and sporangiospore formation, in
Gilbertella persicaria

Mycoscience (2024)

10.47371/mycosci.2024.03.002

7.

Urayama, Syun-ichi; Zhao, Yan-jie; Kuroki, Misa; Chiba, Yuto; Ninomiya, Akihiro; Hagiwara, Daisuke

Greetings from virologists to mycologists: A review outlining viruses that live in fungi

Mycoscience (2024)

10.47371/mycosci.2023.11.004

8.

Kobayashi, Takuma; Nakajima-Kambe, Toshiaki

Isolation and characterization of a novel bacterium that promotes the degradation of poly(glycolic acid) by its extracellular esterase under thermophilic conditions

Polymer Degradation and Stability (2024)

10.1016/j.polymdegradstab.2024.111007

9.

Buma, Seiji; Urayama, Syun-ichi; Suo, Rei; Itoi, Shiro; Okada, Shigeru; Ninomiya, Akihiro

Mycoviruses from *Aspergillus* fungi involved in fermentation of dried bonito

Virus Research (2024)

10.1016/j.virusres.2024.199470

10.

Miyahara, Mikako; Doi, Yuki; Takaya, Naoki; Miyako, Eijiro

Photocatalytic scaffolds enhance anticancer performances of bacterial consortium AUN

Chemical Engineering Journal (2024)

10.1016/j.cej.2024.156378

11.

Kadooka, Chihiro; Katsuki, Nozomi; Masuo, Shunsuke; Kojima, Saito; Amahisa, Madoka; Suzuki, Kouta;

Doi, Yuki; Takeshita, Norio; Takaya, Naoki

Fungal glyceraldehyde 3-phosphate dehydrogenase GpdC maintains glycolytic mechanism against reactive nitrogen stress-induced damage

Frontiers in Microbiology (2024)

10.3389/fmicb.2024.1475567

12.

Iwama, Sohei; Takano, Chikara; Nakashima, Kazunori; Aoyagi, Hideki; Kawasaki, Satoru

Arsenic Removal From Acid Mine Drainage Using Acid-Tolerant Bacteria

Clean-Soil Air Water (2024)

10.1002/clen.70000

13.

Morigasaki, Susumu; Matsui, Motomu; Ohtsu, Iwao; Doi, Yuki; Kawano, Yusuke; Nakai, Ryosuke; Iwasaki, Wataru; Hayashi, Hisayoshi; Takaya, Naoki

Temporal and fertilizer-dependent dynamics of soil bacterial communities in buckwheat fields under long-term management

Scientific Reports (2024)

10.1038/s41598-024-60655-w

14.

Tozawa, Yuta; Shinoda, Seiya; Sekiguchi, Mitsuhiro; Miyamae, Yusaku; Shigemori, Hideyuki

Effect of Meroterpenoids from *Sargassum macrocarpum* on the Inhibition of Amyloid Polypeptide Aggregation

Biological and Pharmaceutical Bulletin (2024)

10.1248/bpb.b24-00610

15.

Nakai, Ryosuke; Kusada, Hiroyuki; Sassa, Fumihiro; Makino, Ayaka; Morigasaki, Susumu; Hayashi, Hisayoshi; Takaya, Naoki; Tamaki, Hideyuki

Roseiterribacter gracilis gen. nov., sp. nov., a novel filterable alphaproteobacterium isolated from soil using a gel-filled microwell array device

Plos One (2024)

10.1371/journal.pone.0304366

16.

Kimishima, Aoi; Nishitomi, Atsuka; Kondo, Naozumi; Honma, Sota; Honsho, Masako; Negami, Sota; Maruyama, Serino; Taguchi, Kazuki; Matsui, Hidehito; Hanaki, Hideaki; Chinen, Takumi; Usui, Takeo; Ogasawara, Hideki; Asami, Yukihiro

Isolation of microorganisms from the feces of Kitasato Yakumo beef cattle as bioactive natural product producers

Bioscience, biotechnology, and biochemistry (2024)

10.1093/bbb/zbae103

17.

Kimishima, Aoi; Nishitomi, Atsuka; Tsuruoka, Iori; Honsho, Masako; Negami, Sota; Honma, Sota; Sakai, Katsuyuki; Tokiwa, Toshiyuki; Kojima, Hiroki; Nonaka, Kenichi; Fuji, Shin-ichi; Chinen, Takumi; Usui, Takeo; Asami, Yukihiro

Synthesis and biological evaluation of burnettiene A derivatives enabling discovery of novel fungicide candidates

Journal of Pesticide Science (2024)

10.1584/jpestics.D24-014

18.

Honma, Sota; Kimishima, Aoi; Kimishima, Atsushi; Honsho, Masako; Kojima, Hiroki; Tokiwa, Toshiyuki; Nishitomi, Atsuka; Kato, Satoshi; Kondo, Naozumi; Araki, Yasuko; Takahashi, Tadashi; Chinen, Takumi; Usui, Takeo; Fuji, Shin-ichi; Ito, Kotaro; Asami, Yukihiro

Re-discovery of MS-347a as a fungicide candidate through a new drug discovery platform with a multidrug-sensitive *Saccharomyces cerevisiae* screening system and the introduction of a global secondary metabolism regulator, *laeA* gene

Bioscience Biotechnology and Biochemistry (2024)

10.1093/bbb/zbae050

19.

Masuo, Shunsuke

Microbial production of aromatic compounds and synthesis of high-performance bioplastics

Bioscience, Biotechnology, and Biochemistry (2024)

10.1093/bbb/zbae111

20.

OKANE, Izumi; Kurita, Akiko; Ono, Yoshitaka

Is the Co-Occurrence of *Neophysopella meliosmae-myrianthae* and *N. montana* (Pucciniales) Common on Grapevines in Japan?

Journal of Fungi (2024)

10.3390/jof11030193

21.

Toshiki, Nagakubo; Tatsuya, Nishiyama; Tatsuya, Yamamoto; Nobuhiko, Nomura; Masanori, Toyofuku
Contractile injection systems facilitate sporogenic differentiation of *Streptomyces davawensis* through the action of a phage tapemeasure protein-related effector

Nature Communications (2024)

10.1038/s41467-024-48834-9

22.

Takano, Chikara; Nakashima, Kazunori; Kawasaki, Satoru; Aoyagi, Hideki

Utilisation of acid-tolerant bacteria for base metal recovery under strongly acidic conditions

Extremophiles (2024)

10.1007/s00792-024-01362-2

23.

Nishino, Shunsuke; Oiki, Sayoko; Yamana, Yoshimasa; Hagiwara, Daisuke

Evaluation of antifungal activity of cerium oxide nanoparticles and associated cellular responses

Bioscience, Biotechnology, and Biochemistry (2024)

10.1093/bbb/zbae101

24.

Okane, Izumi; Hsieh, Huei-Mei; Ju, Yu-Ming; Lin, Chun-Ru; Huang, Chun-Yun; Kuan, I-Ching

Xylaria iriomotensis sp. nov. from termite nests and notes on *X. angulosa*

Botanical Studies (2024)

10.1186/s40529-024-00447-7

25.

Kong, Peifu; Zulfikar, Ainun; Thangunpai, Kotchaporn; Masuo, Shunsuke; Abe, Junichi P.; Enomae, Toshiharu

Efficient encapsulation of Hinoki essential oil with β -cyclodextrin using an ultrasound-aided coprecipitation technique for dual anti-*Listeria monocytogenes* and anti-*Staphylococcus aureus* activities

International Journal of Biological Macromolecules (2024)

10.1016/j.ijbiomac.2024.132382

26.

de Castro, Patricia Alves; Akiyama, Daniel Yuri; Pinzan, Camila Figueiredo; dos Reis, Thaila Fernanda; Delbaje, Endreus; Rocha, Peter; Izidoro, Mario Augusto; Schenkman, Sergio; Sugimoto, Shinya; Takeshita, Norio; Steffen, Karin; Aycock, Jessica L.; Dolan, Stephen K.; Rokas, Antonis; Fill, Taicia; Goldman, Gustavo H.

Aspergillus fumigatus secondary metabolite pyripyropene is important for the dual biofilm formation with *Pseudomonas aeruginosa*

mBio (2024)

10.1128/mbio.00363-25

27.

Kimishima, Aoi; Honma, Sota; Kimishima, Atsushi; Nishitomi, Atsuka; Honsho, Masako; Wasuwanich, Paul; Kojima, Hiroki; Tokiwa, Toshiyuki; Sugawara, Akihiro; Araki, Yasuko; Takahashi, Tadashi; Chinen, Takumi; Usui, Takeo; Fuji, Shin-ichi; Ito, Kotaro; Asami, Yukihiro

Synthesis and biological evaluation of MS-347a derivatives against plant pathogenic fungi based on a strategy of *laeA* gene introduction

Journal of Pesticide Science (2024)

10.1584/jpestics.D24-035

28.

Kimishima, Aoi; Nishitomi, Atsuka; Tsuruoka, Iori; Sakai, Katsuyuki; Hokari, Rei; Honsho, Masako; Honma, Sota; Ono, Yuki; Kondo, Naozumi; Tsutsumi, Hayama; Kikuchi, Yuta; Tokiwa, Toshiyuki; Kojima, Hiroki; Higo, Mayuka; Nonaka, Kenichi; Inahashi, Yuki; Iwatsuki, Masato; Fuji, Shin-Ichi; Jang, Jun-Pil; Jang, Jae-Hyuk; Chinen, Takumi; Usui, Takeo; Asami, Yukihiro

Discovery of an anti-malarial compound, burnettiene A, with a multidrug-sensitive *Saccharomyces cerevisiae* screening system based on mitochondrial function inhibitory activity

Bioscience, Biotechnology, and Biochemistry (2024)

10.1093/bbb/zbae098

29.

Kozawa, Takuma; Aoyagi, Hideki

Novel method for screening probiotic candidates tolerant to human gastrointestinal stress

Journal of Microbiological Methods (2024)

10.1016/j.mimet.2024.106945

30.

Endo, Rin; Karasawa, Satoshi; Aoyagi, Hideki

Simultaneous removal of caesium and strontium using different removal mechanisms of probiotic bacteria

Scientific Reports (2024)

10.1038/s41598-024-57678-8

31.

Nomura, Nobuhiko

Contractile injection systems facilitate sporogenic differentiation of *Streptomyces davawensis* through the action of a phage tapemeasure protein-related effector

Nat Commun (2024)

10.1038/s41467-024-48834-9

32.

Mohsi, N F M; Apandi, A B; Hara, H; UTSUMI, Motoo

Biodegradation of Prazosin by *Bacillus* sp. Isolated from PPCPs Contaminated River in Malaysia

E3S Web of Conferences (2024)

10.1051/e3sconf/202453002001

33.

Yamamoto, Riho; Miki, Hinata; Itani, Ayaka; Takeshita, Norio

Hyphae of the fungus *Aspergillus nidulans* demonstrate chemotropism to nutrients and pH

PLoS biology (2024)

10.1371/journal.pbio.3002726

34.

Toshiki, Nagakubo; Tatsuya, Nishiyama; Tatsuya, Yamamoto; Nobuhiko, Nomura; Masanori, Toyofuku

Contractile injection systems facilitate sporogenic differentiation of *Streptomyces davawensis* through the action of a phage tapemeasure protein-related effector

Nature Communications (2024)

10.1038/s41467-024-48834-9

35.

Miyazawa, Shinano; Sakai, Misa; Omae, Yuma; Ogawa, Yusuke; Shigemori, Hideyuki; Miyamae, Yusaku
Anti-inflammatory effect of covalent PPAR γ ; ligands that have a hybrid structure of GW9662 and a food-derived cinnamic acid derivative

Bioscience, Biotechnology, and Biochemistry (2024)

10.1093/bbb/zbae094

36.

Uchiyama, Hiroki; Kudo, Toshifumi; Yamaguchi, Takehiro; Obana, Nozomu; Watanabe, Kenji; Abe, Kimihiro; Miyazaki, Hidetaka; Toyofuku, Masanori; Nomura, Nobuhiko; Akeda, Yukihiro; Nakao, Ryoma
Mucosal adjuvanticity and mucosal booster effect of colibactin-depleted probiotic *Escherichia coli* membrane vesicles

Hum Vaccin Immunother (2024)

10.1080/21645515.2024.2337987

37.

Kawamoto, Hiroki; Watanabe, Miho; Mochimaru, Hanako; Nakahara, Nozomi; Meng, Xiang-Ying; Sakamoto, Sachiko; Morinaga, Kana; Katayama, Taiki; Yoshioka, Hideyoshi; 野村, 暢彦; Tamaki, Hideyuki
Atrimonas thermophila gen. nov., sp. nov., a novel anaerobic thermophilic bacterium of the phylum Atribacterota isolated from deep subsurface gas field and proposal of Atrimonadaceae fam. nov. within the class Atribacteria in the phylum Atribacterota

Syst Appl Microbiol (2024)

10.1016/j.syapm.2024.126515

38.

Yoshiteru, Hashimoto; Kana, Ishigami; Azam, Hassaninasab; Katsuhiro, Kishi; Takuto, Kumano; Michihiko, Kobayashi
Curcumin degradation in a soil microorganism: Screening and characterization of a beta-diketone hydrolase

J. Biol. Chem. (2024)

10.1016/j.jbc.2024.107647

39.

Sharad, Bhatnagar; AOYAGI, Hideki
Catalytic degradation of water micropollutants and LED-assisted decolourisation of Sudan dyes via mycosynthesised gold nanoparticles

International Journal of Environmental Science and Technology (2024)

10.1007/s13762-024-05794-3

40.

Takahashi, Masato; Sawada, Yoshisuke; Aoyagi, Hideki

A forced aeration system for microbial culture of multiple shaken vessels suppresses volatilization

Archives of Microbiology (2024)

10.1007/s00203-024-03960-2

41.

Tokunou, Yoshihide; Tongu, Hiromasa; Toyofuku, Masanori; Nomura, Nobuhiko

Variations in flavin redox states during extracellular electron transfer and electron conduction in *Shewanella oneidensis*

Electrochemistry Communications (2024)

10.1016/j.elecom.2024.107751

42.

Syarifatul, Mufidah; Ahmed, Atito; Hideyuki, Shigemori; Yusaku, Miyamae

Decoration of GW9662 scaffold with a fragment hit via copper-catalyzed azide-alkyne cycloaddition reaction into peroxisome proliferator-activated receptor γ agonists

Tetrahedron Letters (2024)

10.1016/j.tetlet.2024.155226

43.

Dong, Xiaochuan; Zhang, Sicheng; Chen, Xingyu; Lei, Zhongfang; Yuan, Tian; Shimizu, Kazuya; Utsumi, Motoo

Preliminary tests on carbon and nitrogen emissions and nutrients availability upon application of algal-bacterial granules to arid and low fertility soil

Chemical Engineering Journal (2024)

10.1016/j.cej.2024.152250

44.

Zhao, Yankai; Li, Zejiao; Fan, Yunqiang; Santisouk, Lathdavong; Lei, Zhongfang; Yuan, Tian; Shimizu, Kazuya; Utsumi, Motoo

A preliminary test for nitrogen recovery potential of nitrogen fixing cyanobacteria and its granules treating wastewater containing different nitrogen species

Chemical Engineering Journal (2024)

10.1016/j.cej.2024.151765

45.

Sa'diyah, Wasiatul; Zhao, Yan-Jie; Chiba, Yuto; Kondo, Hideki; Suzuki, Nobuhiro; Ban, Sayaka; Yaguchi, Takashi; URAYAMA, Shunichi; Hagiwara, Daisuke

New lineages of RNA viruses from clinical isolates of *Rhizopus microsporus* revealed by fragmented and primer-ligated dsRNA sequencing (FLDS) analysis.

mSphere (2024)

10.1128/msphere.00345-24

46.

Uehara, S.| Takahashi, Y.| Iwakoshi, K.| Nishino, Y.| Wada, K.| Ono, A.| Hagiwara, D.| Chiba, T.| Yokoyama, K.| Sadamasu, K.

Isolation of azole-resistant *Aspergillus* spp. from food products

Medical Mycology (2024)

10.1093/mmy/myae026

47.

Behrendt, L.| Alcolombri, U.| Hunter, J.E.| Smriga, S.| Mincer, T.| Lowenstein, D.P.| Yawata, Y.| Peaudecerf, F.J.| Fernandez, V.I.| Fredricks, H.F.| Almblad, H.| Harrison, J.J.| Stocker, R.| Van Mooy, B.A.S.

Microbial dietary preference and interactions affect the export of lipids to the deep ocean

Science (2024)

10.1126/science.aab2661

48.

He, X.| Kusuya, Y.| Hagiwara, D.| Toyotome, T.| Arai, T.| Bian, C.| Nagayama, M.| Shibata, S.| Watanabe, A.| Takahashi, H.

Genomic diversity of the pathogenic fungus *Aspergillus fumigatus* in Japan reveals the complex genomic basis of azole resistance

Communications Biology (2024)

10.1038/s42003-024-05902-6

49.

Salarinejad, S.| Seyfi, S.| Hayashi, S.| Moghimi, S.| Toolabi, M.| Taslimi, P.| Firoozpour, L.| Usui, T.| Foroumadi, A.

Design, synthesis, and biological evaluation of new biaryl derivatives of cycloalkyl diacetamide bearing chalcone moiety as type II c-MET kinase inhibitors

Molecular Diversity (2024)

10.1007/s11030-024-10807-x

50.

Katsuki, N., Fukushima, R., Doi, Y., Masuo, S., Arakawa, T., Yamada, C., Fushinobu, S.*, and Takaya, N.*

Protocatechuate hydroxylase is a novel group A flavoprotein monooxygenase with a unique substrate recognition mechanism

Journal of Biological Chemistry (2024)

10.1016/j.jbc.2023.105508

51.

Amahisa, M., Tsukagoshi, M., Kadooka, C., Masuo, S., Takeshita, N., Doi, Y., Takagi, H., Takaya, N.*

The Metabolic regulation of amino acid synthesis counteracts reactive nitrogen stress via *Aspergillus nidulans* cross-pathway control.

Journal of Fungi (2024)

10.3390/jof10010058

52.

Nesma M. Samir, Jacob Locke-Gotel, Syun-Ichi Urayama, Adel A. El-Morsi, Ghada A. El-Sherbeny, Yongju Huang, Bruce D. L. Fitt, Hiromitsu Moriyama, Robert H. A. Coutts & Ioly Kotta-Loizou

Molecular characterization of a polomyovirus in *Leptosphaeria biglobosa*

Archives of Virology (2024)

10.1007/s00705-025-06253-1

53.

Akihiro Ninomiya, Keisuke Masuda, Tsuyoshi Yamada, Misa Kuroki, Sayaka Ban, Takashi Yaguchi, Syun-ichi Urayama, and Daisuke Hagiwara

Rediscovery of viomellein as an antibacterial compound and identification of its biosynthetic gene cluster in dermatophytes

Applied and Environmental Microbiology (2024)

10.1128/aem.02431-24