

学術論文 (* Corresponding author)

2025 (R7)

- 1) Increase of Lipid Productivity in Coculture of *Lipomyces starkeyi* and *Chlorella saccharophilum* on a Picoliter Incubator Array.

Yuma Tanaka, Akihiro Nakamura, Wataru Ogasawara, Ryoji Kurita

ACS Food Science & Technology, 5 (3), 1064-1071, (2025)

<https://doi.org/10.1021/acsfoodscitech.4c00878>

2024 (R6)

- 2) Identification and characterization of the suppressed lipid accumulation-related gene, SLA1, in the oleaginous yeast *Lipomyces starkeyi*,

Rikako Sato , Harutake Yamazaki , Kazuki Mori , Sachiyo Aburatani , Koji

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Bioscience, Biotechnology, and Biochemistry, **88 (11)**,1370-1380, (2024.7.31)

<https://doi.org/10.1093/bbb/zbae107>

2023 (R5)

- 3) Micro-Spatial Attention with Sparse Constraint for Self-Supervised Learning for Oleaginous Yeast Image Representation,

Kazuma Ohtomo, Yukina Kitahara, Ryosuke Harakawa, Akihiro Nakamura,

Yosuke Shida, Wataru Ogasawara, Masahiro Iwahashi,

2023 IEEE International Conference on Visual Communications and Image Processing, VCIP,

<https://doi.org/10.1109/VCIP59821.2023.10402771>

- 4) Deletion of *LsSNF1* enhances lipid accumulation in the oleaginous yeast *Lipomyces starkeyi*,
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Wataru Ogasawara, Hiroaki Takaku,
Journal of Bioscience and Bioengineering, **137 (4)**, 260-267, (2024,2,9)
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- 5) Ultrahigh-throughput screening of *Trichoderma reesei* strains capable of carbon catabolite repression release and cellulase hyperproduction using a microfluidic droplet platform,
Xuan Chinh Luu, Yosuke Shida, Yoshiyuki Suzuki, Daiki Kuwahara, Takeshi Fujimoto, Yuka Takahashi, Naomi Sato, Akihiro Nakamura, Wataru Ogasawara,
Bioscience, Biotechnology, and Biochemistry, **87 (11)**, 1393-1406, (2023.8.8)
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2022 (R4)

Prediction of ethanol fermentation under stressed conditions using yeast morphological data,
Kaori Itto-Nakama, Shun Watanabe, Shinsuke Ohnuki, Naoko Kondo, Ryota Kikuchi, Toru Nakamura, Wataru Ogasawara, Ken Kasahara, Yoshikazu Ohya,
Journal of Bioscience and Bioengineering, **135 (3)**, 210-216, (2023.1.13),
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- 6) A microfluidic device for simultaneous detection of enzyme secretion and elongation of a single hypha,
Ayaka Itani, Yosuke Shida, Wataru Ogasawara,
Frontiers in Microbiology, **14**, 1125760, (2023.03.03)
<https://doi.org/10.3389/fmicb.2023.1125760>

- 7) LsSpt23p is a regulator of triacylglycerol synthesis in the oleaginous yeast *Lipomyces starkeyi*,
Hiroaki Takaku, Haruka Kazama, Rikako Sato, Kazuki Mori, Satoshi Ara, Koji Ishiya, Tomohiko Matsuzawa, Katsuro Yaoi, Hideo Araki, Yosuke Shida, Wataru Ogasawara, Kosuke Tashiro, Satoru Kuhara, Harutake Yamazaki, Sachiyo Aburatani,
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- 8) The monitoring of oil production process by deep learning based on morphology in oleaginous yeasts,
Yukina Kitahara, Ayaka Itani, Kazuma, Ohtomo, Yosuke Oda, Yuka Takahashi, Makoto Okamura, Mizue Mizoshiri, Yosuke Shida, Toru Nakamura, Ryosuke Harakawa, Masahiro Iwahashi, Wataru Ogasawara,
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- 9) A novel high-throughput approach for transforming filamentous fungi employing a droplet-based microfluidic platform,
Xuan Chinh, Yosuke Shida, Yoshiyuki Suzuki, Naomi Sato, Akihiro Nakamura, Wataru Ogasawara,
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Yuma Tanaka, Akihiro Nakamura, Yoshiyuki Suzuki, Kodai Maruta, Yosuke Shida, Wataru Ogasawara,
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- 11) A real-time monitoring system for automatic morphology analysis of yeast cultivation in a jar fermenter,
Yukina Kitahara, Ayaka Itani, Yosuke Oda, Makoto Okamura, Mizue Mizoshiri, Yosuke Shida, Toru Nakamura, Ken Kasahara, Wataru Ogasawara,
Applied Microbiology and Biotechnology, **106**(12), 4683-4693, (2022.6.10),
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- 12) Genetic Engineering of *Trichoderma reesei* for Biomass Hydrolysis,
Yosuke Shida , Wataru Ogasawara
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https://link.springer.com/referenceworkentry/10.1007/978-94-007-6724-9_26-1

2021 (R3)

- 13) Isolation and characterization of *Lipomyces starkeyi* mutants with greatly increased lipid productivity following UV irradiation,
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- 14) Disruption of alpha-tubulin releases carbon catabolite repression and enhances enzyme production in *Trichoderma reesei* even in the presence of glucose,
Nozomu Shibata, Hiroshi Kakeshita, Kazuaki Igarashi, Yasushi Takimura, Yosuke Shida, Wataru Ogasawara, Tohru Koda, Tomohisa Hasunuma, Akihiko Kondo
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<https://doi.org/10.1186/s13068-021-01887-0>

- 15) Structural basis for an exceptionally strong preference for asparagine residue at the S2 subsite of *Stenotrophomonas maltophilia* dipeptidyl peptidase 7, Akihiro Nakamura, Yoshiyuki Suzuki, Yasumitsu Sakamoto, Saori Roppongi, Chisato Kushibiki, Natsuri Yonezawa, Masato Takahashi, Yosuke Shida, Hiroaki Gouda, Takamasa Nonaka, Nobutada Tanaka, Wataru Ogasawara, Scientific Reports, **11**, Article number: 7929, (2021.4.12)
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- 16) 7-Aminocoumarin-4-acetic Acid as a Fluorescent Probe for Detecting Bacterial Dipeptidyl Peptidase Activities in Water-in-Oil Droplets and in Bulk, Akihiro Nakamura, Nobuyuki Honma, Yuma Tanaka, Yoshiyuki Suzuki, Yosuke Shida, Yuko Tsuda, Koushi Hidaka, Wataru Ogasawara, analytical chemistry (American Chemical Society) ,**94**(5), 2416-2424, (2021.12.28)
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- 17) AI-based forecasting of ethanol fermentation using yeast morphological data, Kaori Itto-Nakama, Shun Watanabe, Naoko Kondo, Shinsuke Ohnuki, Ryota Kikuchi, Toru Nakamura, Wataru Ogasawara, Ken Kasahara, Yoshikazu Ohya, Bioscience, Biotechnology, and Biochemistry, **86**(1), 125-134, (2021.11.9)
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2020(R2)

- 18) Involvement of Xyr1 and Are1 for Trichoderma pepsin Gene Expression in Response to Cellulose and Galactose in *Trichoderma reesei*, Daranagama ND, Yoshiyuki Suzuki, Yosuke Shida, Wataru Ogasawara, Current Microbiology ,**77**(8), 1506-1517, April 1 (2020), doi:10.1007/s00284-020-01955-y

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Sakamoto, Yasumitsu, Saori Roppongi, Yoshiyuki Suzuki, Tsukasa Ishihara,
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Mizuki Sekiya, Saori Roppongi, Chisato Kushibiki, Ippei Iizuka, Osamu Tani,
Hitoshi Sakashita, Koji Inaka, Hiroaki Tanaka, Mitsugu Yamada, Kazunori
Ohta, Nobuyuki Honma, Yosuke Shida, Wataru Ogasawara, Mayumi Nakanishi-
Matsui, Takamasa Nonaka, Hiroaki Gouda, and Nobutada Tanaka,
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- 23) Skin-deep Surface Patterning of Calcite,
David C Green, Yosuke Shida, Nobuyuki Honma, Mark A Holden, Yi-Yeoun Kim, Alexander N Kulak, Wataru Ogasawara, Fiona C Meldrum,
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Hiroaki Takaku, Atsumi Miyajima, Haruka Kazama, Rikako Sato, Satoshi Ara, Tomohiko Matsuzawa, Katsuro Yaoi, Hideo Araki, Yosuke Shida, Wataru Ogasawara, Harutake Yamazaki,
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- 25) Effect of light on carotenoid and lipid production in the oleaginous yeast *Rhodospiridium toruloides*,
Pham Khanh Dung, Yosuke Shida, Atsushi Miyata, Takeru Takamizawa, Yoshiyuki Suzuki, Satoshi Ara, Harutake Yamazaki, Kazuo Masaki, Kazuki Mori, Sachiyo Aburatani, Hideki Hirakawa, Kosuke Tashiro, Satoru Kuhara, Hiroaki Takaku, Ogasawara Wataru,
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2016 (H28)

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