

研究期間全年度 研究業績

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1 . 発表論文等（査読付き論文，著書，総説等の発表状況）

- (1) One-pot synthesis of N-acetyl- and N-glycolylneuraminic Acid capped trisaccharides and evaluation of their influenza a(h1 n1) inhibition.
Hsu Y.; Ma HH.; Lico LS.; Jan JT.; Fukase K.*; Uchinashi Y.; Zulueta MM.; Hung SC.
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- (2) A cascading reaction sequence involving ligand-directed azaelectrocyclization and autooxidation-induced fluorescence recovery enables visualization of target proteins on the surfaces of live cells.
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- (3) Development of bis-unsaturated ester aldehydes as amino-glue probes: sequential double azaelectrocyclization as a promising strategy for bioconjugation.
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- (4) Cytotoxic activity of ursolic acid derivatives obtained by isolation and oxidative derivatization.
Mazumder, K.; Tanaka, K.; Fukase, K.* *Molecules* **2013**, *18*, 8929-8944.
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- (8) Innate immunomodulation by lipophilic termini of lipopolysaccharide; synthesis of lipid A from *Porphyromonas gingivalis* and other bacteria and their immunomodulative response.
Fujimoto, Y.; Shimoyama, A.; Saeki, A.; Kitayama, N.; Kasamatsu, C.; Tsutsui, H.; Fukase, K.* *Mol. BioSyst.* **2013**, *9*, 987-996.
- (9) Nickel-butadiene catalytic system for the cross-coupling of bromoalkanoic acids with alkyl grignard reagents: A practical and versatile method for preparing fatty acids.
Iwasaki, T.; Higashikawa, K.; Reddy, V. P.; Ho, W. W. S.; Fujimoto, Y.; Fukase, K.*; Terao, J.; Kuniyasu, H.; Kambe, N. *Chem. Eur. J.* **2013**, *19*, 2956-2960.
- (10) Bio-imaging and cancer targeting with glycoproteins and N-glycans.
Fukase, K.*; Tanaka, K., *Curr. Opin. Chem. Biol.* **2012**, *16*, 614-621.
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Tanaka, K.; Siwu, R. O. E.; Hirosaki, S.; Iwata, T.; Matsumoto, R.; Kitagawa, Y.; Pradipta, A. R.; Okumura, M.; Fukase, K.* *Tetrahedron Lett.* **2012**, *53*, 5899-5902.
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- (16) Auxiliary-directed oxidation of ursolic acid by 'Ru'-porphyrins: chemical modulation of cytotoxicity against tumor cell lines.
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Huang, C-y.; Wang, N.; Fujiki, K.; Otsuka, Y.; Akamatsu, M.; Fujimoto, Y.; Fukase, K.* *J. Carbohydr. Chem.* **2010**, *29*, 289-298.
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- (28) Renaissance of Traditional Organic Reactions under Microfluidic Conditions: A New Paradigm for Natural Products Synthesis.
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- (3) K. Tanaka, K. Fukase, Oligosaccharide Synthesis on Solid, Soluble Polymer, and Tag Supports. In *Solid-Phase Organic Synthesis Book*, P. Toy (ed), John Wiley & Sons, New Jersey, **2011**, 489-530
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- (7) 田中克典、深瀬浩一、糖鎖の侵襲的イメージング、「創薬研究への分子イメージング応用」、*メディカルドゥ*、**2010**, 66-73
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- (2) Synthesis of Inositol Phospholipid, as an NKT Cell Activator
Toshihiko Aiba, Osaka university-University of Bordeaux International Symposium, Institut Européen de Chimie et Biologie, University of Bordeaux, Pessac, France, 2014.3.14-15 (Oral)
- (3) Synthetic Study of Microbial and Animal Glycans
Koichi Fukase, 27th International Carbohydrate Symposium (ICS27), Bangalore, India, 2014.1.12-17 (Invited)

- (4) Synthetic study of mono- and bi-sialylated saccharides motifs as molecular probes for biological evaluation using efficient alpha-sialylation
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- (5) マイクロフロー合成を基軸とした集積合成法の開発と生体制御分子創製への展開
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- (6) Synthesis and Bio-imaging study of glycans towards immunoregulation
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- (9) Efficient Bromination of Benzylic Position Using Photo-Microflow System
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- (15) Solid phase synthesis for bacterial cell wall peptidoglycan Fragments
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- (16) 化学プロセスインテグレーションと化合物インテグレーション：生体反応の制御を目指した化学システムの創成
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- (18) Visualization of Glycan-dependent Bio-dynamics of Glycoproteins, Glycan Dendrimers, and Living Cells by PET and Fluorescent Imaging
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- (20) Synthetic Study of *N*-glycans Using Efficient Glycosylation
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- (21) Synthesis and Bio-functional Studies of Animal and Bacterial Glycans
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- (22) Synthetic Study of *N*-glycan Using Efficient Glycosylation Under Microfluidic Condition
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- (23) 生物機能分子と生体分子機能の探索を目指した新しいアッセイシステム：シグナル遮断分子とグリコバイオイメージング
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- (24) Bacterial Cell Wall Peptidoglycan Fragment Library/Array for Investigation of Their Protein Recognition
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- (25) マイクロリアクターを利用した反応制御と糖鎖合成
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- (26) 有機合成と生体イメージングを基盤とすると糖鎖化学生物学
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- (27) Synthetic Studies of Glycans and Glycoconjugates for Chemical Glycobiology
Koichi Fukase, 5th Gratama Workshop, Tokyo Institute of Technology, 2013.5.29-6.1 (Plenary)
- (28) Synthetic study of bis-sialylated *N*-glycan motifs using efficient α -sialylation

- Zhou Jiazhou, Manabe Yoshiyuki, Tanaka, Katsunori, Fukase Koichi, 5th Gratama Workshop, Tokyo Institute of Technology, 2013.5.29-6.1(Poster)
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- (30) マイクロリアクターを利用した反応制御と糖鎖合成 (特別企画講演)
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- (31) Synthesis of regulatory molecules and probes for innate immunity and glyco-imaging
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- (32) Comprehensive Approaches for New Antitumor Agents and Immunoregulatory Molecules, Regulation of Innate Immune Responses and Signal Transductions
Koichi Fukase, First International Symposium on Pharmaceutical Sciences: A Global Approach, Department of Pharmacy, University of Science & Technology, Chittagong, Bangladesh, 2013.2.26 (Plenary)
- (33) 有機合成を基盤とする生物活性分子の機能解析と創製
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- (34) Nanyang Technological University (Singapore) Library-oriented Synthetic Study of *N*-Glycans
Yoshiyuki Manabe, Masahiro Nagasaki, Naoya Minamoto, Regina Salmasan, Katsunori Tanaka, Koichi Fukase, The 7th international conference on cutting-edge organic chemistry in Asia / The 3rd new phase international conference on cutting-edge organic chemistry (ICCEOCA-7 / NICCEOCA-3), Nanyang Technological University (Singapore), 2012.12.11-14 (Poster)
- (35) Synthesis and Biofunctions of Nod1/Nod2 ligands from peptidoglycan; Innate Immunostimulatory glycoconjugates of bacteria
Y. Fujimoto, A. R. Pradipta, N. Wang, A. Kawasaki, Y. Kadonaga, M. Hasegawa, N. Inohara, K. Fukase, The Twelfth International Kyoto Conference on New Aspects of Organic Chemistry (IKCOC-12), Rihga Royal Hotel Kyoto, 2012.11.12-16 (Oral)
- (36) Library Oriented Synthetic Study of *N*-Glycans

- Yoshiyuki Manabe, Masahiro Nagasaki, Naoya Minamoto, Regina Salmasan, Katsunori Tanaka, Koichi Fukase, The Twelfth International Kyoto Conference on New Aspects of Organic Chemistry (IKCOC-12), Rihga Royal Hotel Kyoto, 2012.11.12-16 (Poster)
- (37) Synthesis of peptidoglycan fragment library for analysis of receptor recognition
Ning Wang, Cheng-yuan Huang, Yukari, Fujimoto, Koichi, Fukase, The Twelfth International Kyoto Conference on New Aspects of Organic Chemistry (IKCOC-12), Rihga Royal Hotel Kyoto, 2012.11.12-16 (Poster)
- (38) Practical Microfluidic Procedures for a(alpha)-Sialylation
Yosuke Uchinashi, Katsunori Tanaka, Koichi Fukase, The Twelfth International Kyoto Conference on New Aspects of Organic Chemistry (IKCOC-12), Rihga Royal Hotel Kyoto, 2012.11.12-16 (Poster)
- (39) Immunoactivation and immunomodulation using synthetic PRR ligands
Koichi Fukase, The 1st International Symposium on Chemical Biology of Natural Products Target ID and Regulation of Bioactivity, Kyoto, Kyoto Century Hotel, 2012.10.31-11.1 (Invited)
- (40) Immunoactivation and immunomodulation using synthetic PRR ligands
Koichi Fukase, International Endotoxin and Innate Immunity Society Meeting 2012 (IEIIS2012), National Institute of Informatics, Tokyo, Japan, 2012.10.23-26 (Invited)
- (41) 有機合成とイメージングを基盤とする生物活性分子の機能解析と創製：新しい抗腫瘍療法を目指して
深瀬浩一、大塚 有機合成シンポジウム、大塚製薬 能力開発研究所（徳島）
2012.10.15-16（招待講演）
- (42) Synthesis of bacterial glycoconjugates for regulation of immune system
Koichi Fukase, 5th Baltic Meeting on Microbial Carbohydrates, Suzdal, Russia, 2012.9.2-6 (Invited)
- (43) Solid Supported Synthesis of *N*-Glycans: *N*-Glycosylation and Cleavage
Regina Salmasan, Masahiro Nagasaki, Yoshiyuki Manabe, Katsunori Tanaka, Koichi Fukase, The Second Asian Chemical Biology Conference ACBC2012, Southern Beach Hotel & Resort, Okinawa Japan, 2012. 7. 4-6 (Poster)
- (44) Microfluidic glycosylation for efficient synthesis of biofunctional glycans
Koichi Fukase, Katsunori Tanaka, Yukari Fujimoto, Yosuke Uchinashi, Atsushi Shimoyama The 26th International Carbohydrate Symposium (ICS2012), Madrid, Spain, 2012.6.22-27 (Oral)
- (45) Noninvasive imaging of glycan-dependent tumor metastasis through live cell labeling by azaelectrocyclization.

- Katsunori Tanaka, Kenta Moriwaki, Tsutomu Nakagawa, Satomi Yokoi, Koichi Koyama, Eiji Miyoshi, Koichi Fukase, The 26th International Carbohydrate Symposium (ICS2012), Madrid, Spain, 2012.6.22-27 (Oral)
- (46) 化学合成で糖鎖の生物機能に迫る
深瀬浩一、第15回機能性分子シンポジウム、筑波大学総合研究棟、2012.1.28
(招待講演)
- (47) Integrated Synthesis of Bioactive Glycans and Heterocycles
K. Fukase, 10th International Symposium on Organic Reactions (ISOR10)
Faculty of Science and Technology, Keio University, Yokohama, Japan, 2011.11.21-24
(Invited)
- (48) Synthesis of lipopolysaccharide partial structures of parasitic bacteria; elucidation of their immunomodulating function
K. Fukase, A. Shimoyama, A. Saeki, N. Kitayama, C. Kasamatsu, Y. Fujimoto, The 3rd Asian Communications on Glycobiology and Glycotechnology, Shanghai Institute of Organic Chemistry, Shanghai, China, 2011.10.27-29 (Oral)
- (49) Glyco-imaging for glycan dynamics study
K. Fukase, The 71st Okazaki Conference "New perspectives on molecular science of glycoconjugates", Osaka Conference Center, NINS, Japan, 2011.10.12-14 (Invited)
- (50) Structures and functions of bacterial lipopolysaccharides
K. Fukase, Bilateral Joint Seminar: Glycobiology Japan-Netherlands Joint Seminar 2011
Nagoya University Hospital, Nagoya, Japan, 2011.10.8-11 (Invited)
- (51) Solid-phase synthesis of glycoconjugates
Y. Kadonaga, Y. Fujimoto, K. Fukase, The Seventh International Symposium on Integrated Synthesis (ISIS-7), Seaside Hotel Maiko Villa, Kobe, Japan, 2011.10.9-10
(Poster)
- (52) Synthesis of Mono- and Di-sialylation N-glycan Motifs as Molecular Probes for Biological Evaluation
J. Zhou, G. Bao, K. Tanaka and K. Fukase, The Seventh International Symposium on Integrated Synthesis (ISIS-7), Seaside Hotel Maiko Villa, Kobe, Japan, 2011.10.9-10
(Poster)
- (53) Reinvestigation of α -Sialylation under Microfluidic Conditions
M. Nagasaki, Y. Uchinashi, J. Zhou, K. Tanaka, K. Fukase, The Seventh International Symposium on Integrated Synthesis (ISIS-7), Seaside Hotel Maiko Villa, Kobe, Japan, 2011.10.9-10 (Poster)

- (54) Glycoimaging of whole-body system: application to glycoproteins, glycan dendrimers, and glycan-engineered cells
Koichi Fukase, Katsunori Tanaka, 43rd IUPAC World Chemistry Congress
“Balancing Life with Glycoconjugates”, Puerto Rico Convention Center, Puerto Rico, 2011.8.1 (Invited)
- (55) 有機合成で糖鎖機能を探る
深瀬浩一、天然物化学の新展開(高知大学)、2011.7.2 (招待講演)
- (56) New functional analysis of glycans based on chemical synthesis and bio-imaging
Koichi Fukase, Frontiers of Chemical Biology at Peking University Shenzhen Graduate School, the School of Chemical Biology and Biotechnology, China, 2011.4.14-16 (Invited)
- (57) 標的指向型ライブラリー構築と生命科学への貢献
深瀬浩一、日本化学会第91回春季年会、神奈川大学、2011.3.26-29 (特別企画講演)
- (58) 精密有機合成と生体イメージングを基盤とする生物活性複合糖質の機能解明
深瀬浩一、日本化学会第91回春季年会、神奈川大学、2011.3.26-29 学術賞受賞演
- (59) 免疫制御を指向したケミカルグリコバイオロジー
深瀬浩一、日本化学会第91回春季年会、神奈川大学、2011.3.26-29 依頼講演
- (60) Synthetic approach for in vivo functional studies of glycans: Application of PET imaging
Koichi Fukase, The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010) Honolulu, USA, 2010.12.14-20 (Invited)
- (61) Study of microfluidic reactions toward production of biofunctional molecules: Application to glycan synthesis
Koichi Fukase, The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010) Honolulu, USA, 2010.12.14-20 (Invited)
- (62) Unprecedented [2+2]-Condensation of Imines: Remarkable Substituent Effects and Synthetic Applications
Katsunori Tanaka, Shinji Hirosaki, Takayuki Iwata, Eric, R. O. Siwu, Koichi Fukase, The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010) Honolulu, USA, 2010.12.14-20 (Poster)
- (63) Cytotoxic Ursolic Acid Derivatives from Bangladeshi Medicinal Plants, *Saurauja roxburghii*
Kishor Mazumder, Eric R. O. Siwu, Katsunori Tanaka, Koichi Fukase, The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010) Honolulu,

- USA, 2010.12.14-20 (Poster)
- (64) Synthesis of α -Sialosides under Microfluidic Conditions
Y. Uchinashi, K. Tanaka, and K. Fukase, The 2010 International Chemical Congress of Pacific Basin Societies (Pacifichem 2010) Honolulu, USA, 2010.12.14-20 (Poster)
- (65) Synthetic Approach for Elucidating Glycan Codes
Koichi Fukase, Yukari Fujimoto, Katsunori Tanaka, The 5th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-5) / The 1st New phase International Conference on Cutting-Edge Organic Chemistry in Asia (NICCEOCA-1), Ambassador Hotel at Hsinchu, Taiwan, 2010.11. 7-11 (Invited)
- (66) Synthetic Approach for Elucidation of Biological Relevance of Glycans
Koichi Fukase, The Sixth International Symposium on Integrated Synthesis (ISIS-6) Seaside Hotel Maiko Villa Kobe, 2010.10. 23-24 (Invited)
- (67) Microfluidic Procedures in Oligosaccharides Synthesis: Innovative Chemical Transformation to Sialoglycans
Y. Uchinashi, K. Tanaka, K. Fukase, International Symposium on Environmentally Benign Synthesis, Osaka Univ., Nakanoshima Center, 2010.10. 22-23 (Poster)
- (68) Synthesis of α -Sialosides under Microfluidic Conditions
Koichi Fukase, Yosuke Uchinashi, and Katsunori Tanaka, Sialoglyco 2010, Potsdam, Germany, 2010.8.21-26 (Poster)
- (69) Practical Microfluidic Procedures for α -Sialylation
K. Tanaka, Y. Uchinashi, A. Nakayabu, and K. Fukase, The 25th International Carbohydrate Symposium (ICS 2010), Chiba, 2010.8.1-6 (Poster)
- (70) Azaelectrocyclization-Based Labelling and Bioconjugation of Proteins and Living Cells: Application to Imaging of N-Glycans and Lymphocytes
Koichi Fukase, The 4th HiPep-Okinawa International Workshp, Okinawa Industry Support Center, 2010.7.9 (Invited)
- (71) イメージングを利用した糖鎖の新しい機能探索
深瀬浩一、田中克典、Eric Siwu、南香莉、渡辺恭良、長谷川功紀、野崎聡、金山洋介、小山幸一、三善英知、中川勉、里村慎二平成 22 年度生理学研究所研究会、糖鎖機能研究会・・・分子レベルでの解明を目指して、2010.7.1-2 (招待講演)
- (72) Synthetic Approach for In Vivo Functional Studies of Glycans
Koichi Fukase, The 21st French-Japanese Symposium on Medicinal and Fine Chemistry (FJS2010) Kyoto Garden Palace, 2010.5. 9-12 (Invited)
- (73) Unprecedented [2+2]-Condensation of Imines: Simultaneous C-C & N-N Bond Formations to 1,2-Diazetidines

- Katsunori Tanaka, Shinji Hirosaki, Takayuki Iwata, Eric, R. O. Siwu, Koichi Fukase, The 21st French-Japanese Symposium on Medicinal and Fine Chemistry (FJS2010) Kyoto Garden Palace, 2010.5. 9-12 (Poster)
- (74) Isolation and Cytotoxic Activity of Ursolic Acid Derivatives from Bangladeshi Medicinal Plants, *Saurauja roxburghii*
Kishor Mazumder, Eric R. O. Siwu, Katsunori Tanaka, Koichi Fukase, The 21st French-Japanese Symposium on Medicinal and Fine Chemistry (FJS2010) Kyoto Garden Palace, 2010.5. 9-12 (Poster)
- (75) Practical Microfluidic Procedures for α -Sialylation
Y. Uchinashi, A. Nakayabu, and K. Fukase, International Symposium on Organelle Networks: Interface among Infection-Immunity, Cell Biology and Glycobiology, Osaka, 2010.4.12-13, (Poster)
- (76) 有機合成で生物機能に迫る：マイクロフロー合成と固相合成による糖鎖構築と糖鎖の新機能解析
深瀬浩一、第 29 回日本糖質学会年会、高山、2009.9.9-11 (招待講演)
- (77) 集積型合成を目指したマイクロフロー合成研究
深瀬浩一、フロー・マイクロ合成研究会 第 21 回公開講演会、大阪、2009.8.7 (招待講演)
- (78) 糖鎖の合成と in vivo 生体分子科学
深瀬浩一、第 44 回天然物化学談話会、つくば、2009.7.8-10 (招待講演)
- (79) Convergent Synthesis of *N*-linked Sialoglycan on Solid-Supports
Bao, G.-m.; Fujii, Y.; Tokimoto, H.; Mori, Y.; Tanaka, S.; Siwu, E. R. O.; Nakayabu, A.; Tanaka, K.; Fukase, K. International Workshop of Biofunctional Chemistry for Young Scientists, Awaji, Japan, 2009.7.22-24 (Oral)
- (80) Practical α -Sialylation under Microfluidic Conditions
Uchinashi, Y., Umeda, S., Tanaka, K., Fukase, K., International Workshop of Biofunctional Chemistry for Young Scientists, Awaji, Japan, 2009.7.22-24 (Oral)
- (81) Chemical Glycobiology of Self/Non-self Recognition
K. Fukase, Gordon Research Conferences, Carbohydrates, Tilton School, Tilton, NH, 2009.6.14-19 (invited)

3 . 特許

- (1) 水不溶性担体及びエンドトキシン吸着材
国立大学法人大阪大学，深瀬浩一
特開 2012-143707 ，2012.8.2.

4 . 学会・シンポジウム等の開催状況

- (1) 第 32 回日本糖質学会年会、大阪国際交流センター、2013.8.5-7 (深瀬浩一、世話人代表)
- (2) 第 14 回関西グライコサイエンスフォーラム、大阪大学豊中キャンパス 大阪大学会館、2013.5.25 (深瀬浩一、世話人代表)
- (3) The Second Asian Chemical Biology Conference (ACBC2012), Southern Beach Hotel & Resort OKINAWA, Itoman, Okinawa, 2012.7.4-6 (Koichi Fukase, Chairman).
- (4) 第 44 回若手ペプチド夏の勉強会 , ロッジ舞洲 , 大阪 , 2012.8.5-7 (深瀬浩一、世話人、真鍋良幸、世話人代表)
- (5) Endotoxin and Innate Immunity: Past, Present, and Future, Osaka University, 2012.10.19 (Koichi Fukase, Yukari Fujimoto, Co-chair person)
- (6) International Endotoxin and Innate Immunity Society Meeting 2012 (IEIIS2012), National Center of Sciences Hitotsubashi Memorial Hall, Tokyo, 2012.10.23-26 (Koichi Fukase, Organizing Committee).
- (7) Twelfth International Kyoto Conference on New Aspects of Organic Chemistry (IKCOC-12), Rihga Royal Hotel, Kyoto, 2012.11.12-16 (Koichi Fukase, Organizing Committee).
- (8) The First International Symposium on Biofunctional Chemistry (ISBC2012), 東工大蔵前会館, 2012.11.28-30.
- (9) Combinatorial Chemistry and Chemical Biology toward A New Paradigm for Drug Discovery (CCCB), Osaka, Japan, 2009. 9.24-25 (深瀬浩一、実行委員長)

5 . 受賞等

- (1) 長崎政裕 (博士後期課程 1 年)
第 8 回 International Symposium on Integrated Synthesis (ISIS-8)、ポスター賞、2013.11.29
- (2) 松本梨沙 (博士前期課程 2 年)
第 3 回 CSJ 化学フェスタ 2013、優秀ポスター発表賞、2013.11.11
- (3) 相羽俊彦 (博士前期課程 2 年)
2013 生有研シンポジウム、Best Discussion 賞、2013.07.11
- (4) 加治木泰範 (博士後期課程 3 年)
2013 生有研シンポジウム、Best Discussion 賞、2013.07.11
- (5) 岩田隆幸 (博士後期課程 1 年)
日本化学会 第 93 回春季年会、学生講演賞、2013.03.22

- (6) 藤本ゆかり (准教授)
The Alois Nowotny 賞 International Endotoxin & Innate Immunity Society、2012.10.24
- (7) 岩田隆幸 (博士後期課程 1 年)
第 44 回若手ペプチド夏の勉強会、一般講演部門優秀賞、2012.8.7
- (8) 北谷方嵩 (博士前期課程 2 年)
第 44 回若手ペプチド夏の勉強会、ポスター発表部門優秀賞、2012.8.7
- (9) 來山直弘 (博士前期課程 1 年)
有機反応懇談会、ポスター賞、2011. 8. 3
- (10) 深瀬浩一 (教授)
第 28 回日本化学会、学術賞、2011.3.26
- (11) 田中克典 (助教)
第 29 回有機合成化学協会、奨励賞、2010
- (12) 田中克典 (助教)
第 13 回 日本糖質学会 奨励賞、2010
- (13) 加治木泰範 (博士前期課程 2 年)
第 6 回 International Symposium on Integrated Synthesis(ISIS-6)、ポスター賞、
2010.10.23
- (14) 宮川卓也 (博士前期課程 2 年)
第 27 回有機合成化学セミナー、ポスター賞、2010. 9. 2
- (15) 下山敦史 (特任研究員)
第 28 回 内藤コンファレンス、ポスター賞、2010.7.30
- (16) 下山敦史 (博士後期課程 3 年)
日本化学会 第 90 回春季年会、学生講演賞、2010.3.26
- (17) 南 香莉 (博士前期課程 2 年)
第 28 回 Combinatorial Chemistry and Chemical Biology (CCCB)、ポスター賞、
2009.09.24
- (18) 深瀬浩一 (教授)
近畿化学協会 フロー・マイクロ合成研究会、第 4 回銅金賞、2009. 8.7
- (19) 南 香莉 (博士前期課程 2 年)
第 4 回年会 日本ケミカルバイオロジー学会、ポスター賞、2009. 5.18
- (20) 下山敦史 (博士後期課程 3 年)
第 10 回 関西グライコサイエンスフォーラム、奨励賞受賞、2009.05.16

6 . 新聞報道等

(1) Nod1 免疫活性化物質 構造解析に成功

深瀬浩一，藤本ゆかり，猪原直弘，日刊工業新聞，2012.11.29

7 . 国民との科学・技術対話

雲雀丘学園高等学校進路学習「職業人に学ぶ」 高校一年生、40名、2012.12.15,
10:45-11:35, 11:45-12:35、感想文。

8 . 領域内の共同研究の準備・実施状況とその成果

(1) 共同研究先：大阪大学大学院工学研究科，神戸宣明 研究室（A01 班，公募班員）

共同研究者：藤本ゆかり（准教授），相羽俊彦（博士前期課程 1 年）

共同研究内容：Ni 触媒を用いた Grignard 試薬による炭素-炭素結合生成反応の
長鎖脂肪酸合成への展開

共同研究成果：

(論文) Nickel-Butadiene Catalytic System for the Cross-Coupling of Bromoalkanoic
Acids with Alkyl Grignard Reagents: A Practical and Versatile Method for Preparing
Fatty Acids.

Iwasaki, T.; Higashikawa, K.; Reddy, V. P.; Ho, W. W. S.; Fujimoto, Y.; Fukase, K.; Terao,
J.; Kuniyasu, H.; Kambe, N. *Chem. Eur. J.* **2013**, *19*, 2956-2960.

(学会発表)

a) *Entamoeba histolytica* 由来 NKT 細胞刺激作用を有するイノシトールリン脂質
合成

相羽俊彦、佐藤昌紀、梅垣大地、岩崎孝紀、神戸宣明、藤本ゆかり、深瀬浩一
日本化学会第 93 春季年会、滋賀県草津・立命館大学、2013.3.22-25（口頭発表）

b) 1,3-ブタジエン存在下、ニッケル触媒を用いるプロモカルボン酸類およびベン
ゾチアゾール類のアルキル化反応

岩崎孝紀、Ghaderi, Arash、福岡明日香、東川清一、Vutukuri, Prakash R.、Ho,
Willbe H. S.、藤本ゆかり、深瀬浩一、寺尾潤、国安均、神戸宣明

日本化学会第 93 春季年会、滋賀県草津・立命館大学、2013.3.22-25（口頭発表）

(2) 共同研究先：名古屋大学物質科学国際研究センター，北村雅人研究室（A02 班， 公募班員）

共同研究者：藤本ゆかり（准教授），相羽俊彦（博士前期課程 1 年）

共同研究内容：O-アリル基の新規切断法ならびに導入法を利用した複合糖質合成