薬学研究科薬学専攻　専門分野・教員一覧

■教授

赤木　玲子　　博士（医学）　❊薬学研究科長 兼 薬学専攻長

主な担当科目	●分子代謝制御学特論　●分子生命制御学演習　●特別研究
研究内容	ストレス負荷による細胞機能障害とストレスタンパク質誘導の分子機構解明
主な学術論文	●Akagi R : Role of Heme Oxygenase in Gastrointestinal Epithelial Cells (2022) Antioxidants, 11 (7), 1323 DOI: 10.3390/antiox11071323 ●Inouye S, Kubo T, Miyamoto T, Iyoda T, Okita N, Akagi R: Heat shock-induced heme oxygenase-1 expression in a mouse hepatoma cell line is dependent on HSF1 and modified by NRF2 and BACH1 (2022) Genes to Cells, 27 (12), 719-730 DOI: 10.1111/gtc.12986 ●Akagi R, Kubo T, Hatori Y, Miyamoto T, Inouye S: Heme oxygenase-1 induction by heat shock in rat hepatoma cell line is regulated by the coordinated function of HSF1, NRF2 and BACH1 (2021) J. Biochemistry, 170 (4), 501-510 DOI: 10.1093/jb/mvab065

稲垣　昌宣　　博士（薬学）

主な担当科目	●医薬品品質評価学特論　●特別研究
研究内容	天然物由来医薬素材の探索
主な学術論文	●S. Kawakami, M. Inagaki, M. Nishimura, H. Otsuka, K. Matsunami, T. Nehira, T. Shinzato, Crotofolane-Type Diterpenoids: Crotocascarins R-V, Rearranged Trinorcrotofolane: Crotocascarin δ and a Phorbol Derivative from the Leaves of *Croton cascarilloides*, *Chem. Pharm. Bull.*, **70**(4), 286—292 (2022). ●M. Inagaki, R. Iwakuma, S. Kawakami, H. Otsuka, H. L. Rakotondraibe, Detecting and Differentiating Monosaccharide Enantiomers by ^{1}H NMR Spectroscopy, *J. Nat. Prod.*, **84** (7), 1863—1869 (2021). ●K. Kawabata, M. Ishida, S. Akimoto, M. Inagaki, H. Nishi, Evaluation of the Photodegradation of Crushed- and Suspended Pranoprofen Tablets, *Chromatography*, **42** (3), 127-132 (2021).

大塚　英昭　　博士（薬学）

主な担当科目	●漢方治療学特論　●病態解析治療学演習　●特別研究
研究内容	沖縄、東南アジア、マダガスカル等熱帯、亜熱帯に産するエンデミック植物を材料として、それらから得られる新規化合物の探索、並びに得られた化合物の生物活性を培養細胞並びにモデル生物検定法を用いた検討。
主な学術論文	●Ardisiatetrons A and B; tetronic acid derivatives and triterpenes from the leaves of Ardisia quinquegona, and their biological activity. S. Kawakami, M. Ishinaka, S. Asaumi, S. Sugimoto, M. Inagaki, M. Nishimura, K. Matsunami, H. Otsuka, T. Shinzato, T. Hyodo, K. Yamaguchi: J. Nat. Med. 75(03) 643-654 (2021) ●Crotofolane-type diterpenoids: crotocascarins R-V, rearranged trinorcrotofolane: crotocascarin δ and a phorbol derivative from the leaves of Croton cascarilloides. S. Kawakami, M. Inagaki, M. Nishimura, H. Otsuka, K. Matsunami, T. Nehira, Takakazu Shinzato: Chem. Pharm. Bull., 70(04) 286-292 (2022) ●Omphalines A-E: ent-rosane-type diterpenoids from Madagascar endemic plant, Omphalea oppositifolia. S. Kawakami, C. Kanagawa, L. Harinantenaina R., M. Inagaki, M. Nishimura, H. Otsuka, T. Seyama, K. Matsunami, F. Marrino R., S. R. Rakotonandrasana, A. M. Ratsimbason: Chem. Pharm. Bull., 70(12) 901-906 (2022)

瀬山　敏雄　　博士（医学）

主な担当科目	●病理病態学特論　●がん医療薬学特論　●特別研究
研究内容	放射線による発ガン機構の分子細胞学的研究
主な学術論文	●Kubo T, Nishimura Y, Sato Y, Yanagihara K, Seyama T. Sixteen Different Types of Lipid-Conjugated siRNAs Containing Saturated and Unsaturated Fatty Acids and Exhibiting Enhanced RNAi Potency. ACS Chem. Biol. 16, 150-164 (2021). ●Kubo T, Nishimura Y, Hatori Y, Akagi R, Mihara K, Yanagihara K, Seyama T.Antitumor effect of palmitic acid-conjugated DsiRNA for colon cancer in a mouse subcutaneous tumor model. Chem Biol Drug Des., 93, 570-581 (2019). ●Kubo T, Yanagihara K, Seyama T. In Vivo RNAi Efficacy of Palmitic Acid-Conjugated Dicer-Substrate siRNA in a Subcutaneous Tumor Mouse Model. Chem Biol Drug Des,87,811-23 (2016).

薬学研究科薬学専攻　専門分野・教員一覧

高野　幹久　　博士（薬学）

主な担当科目	●医療情報解析学特論　●病態解析治療学演習　●臨床薬学演習　●特別研究
研究内容	薬物の生体膜輸送とその意義の解明、薬物による細胞毒性発現機構の解析
主な学術論文	● Takano, M., Kuriyama, S., Kameda, N., Kawami, M. and Yumoto, R.: Effect of corticosteroids on peptide transporter 2 function and induction of innate immune response by bacterial peptides in alveolar epithelial cells. Biol. Pharm. Bull., 45, 213-219 (2022) ● Takano, M., Higa, S., Furuichi, Y., Naka, R. and Yumoto, R.: Suppression of P-glycoprotein by cigarette smoke extract in human lung-derived A549/P-gp cells. Drug Metab. Pharmacokinet., 35, 214-219 (2020) ● Takano, M., Nekomoto, C., Kawami, M. and Yumoto, R.: Role of miR-34a in TGF-β1- and drug-induced epithelial-mesenchymal transition in alveolar type II epithelial cells. J. Pharm. Sci., 106, 2868-2872 (2017)

徳村　彰　　博士（農学）

主な担当科目	●脂質分子生物学特論　●分子生命制御学演習　●特別研究
研究内容	消化管の機能に及ぼす食事性成分の効果、リゾ脂質メディエーターの生理機能と病態との関連性
主な学術論文	●　A low level of lysophosphatidic acid in human gingival crevicular fluid from patients with periodontitis due to high soluble lysophospholipase activity: Its potential protective role on alveolar bone loss by periodontitis. Biochim. Biophys. Acta Mol. Cell Biol. Lipids1865 (2020) 158698. ●　Addition of high load of lysophosphatidic acid to standard anf high-fat chows causes no significant changes of its circulating and peripheral tissue levels but affect body weight and visceral fat mass of mice. Biofactors 44 (2018)548-557. ●Three lysophosphatidic acids with distinct long chain moiety differently affect cell differentiation of human colon epithelial cells to goblet cells. Life Sci.197 (2018)73-79.

中西　博　　博士（薬学）

主な担当科目	●病態薬物学特論　●薬効評価学特論　●臨床薬学演習　●特別研究
研究内容	ミクログリアの生理的・病理的役割に関する薬理学的研究
主な学術論文	● Inoue E*, Minatozaki S*, Katsuta Y, Nonaka S, Nakanishi H. Human b-defensin 3 inhibits Porphorymonas gingivalis lipopolysaccharide-induced oxidative and inflammatory responses of microglia by suppression of cathepsins B and L. Int. J Mol. Sci. 23, 15099 (2022). (*共同第一著者) ● Nonaka S, Kadowaki T, Nakanishi H. Secreted gingipains from Porphyromonas gingivalis induce increased permeability of human cerebral microvascular endotherial cells through intracellular degradation of tight junction proteins. Neurochem Int. 154, 105282 (2022). ● Xie Z, Meng J, Kong W, Wu Z, Lan F, Narengaowa, Hayashi Y, Qinghu Yang Q, Bai Z, Nakanishi H, Qing H, Ni J. Microglial cathepsin E plays a role in neuroinflammation and amyloid b production in Alzheimer’s disease. Aging Cell 21:e13565 (2022).

西　博行　　博士（薬学）

主な担当科目	●医薬品品質評価学特論　●特別研究
研究内容	UHPLCおよびHPLCによる医薬品の選択的かつ迅速精密評価法の開発
主な学術論文	●K. Kawabata, H.Nishi: Evaluation of Photostability of Medicines and Development of the Photostabilization of the Photosensitive Medicines (review), Chromatography, 44, 11-19, (2023). ●K. Kawabata K, A. Miyoshi, H. Nishi: Cocrystallization with Nicotinamide Promote Naproxen Photodegradation in the Solid-state, J. Photochem. & Photobiol., 14, 100172 (2023). ●Y.Sumida, M.Kimura, T.Yorie, N.Soeshima, K.Kawabata, M.Inagaki, H.Nishi : Simultaneous Separation of Active Ingredients Contained in Ginger (Shokyo), Processed Ginger (Kankyo) and Magnolia Bark by Reversed-phase HPLC with Core-shell Type Columns. Application to Kampo Products and Food Analysis, Chromatography, 39,153-160, (2018).

薬学研究科薬学専攻　専門分野・教員一覧

西村　基弘　　博士（薬学）

主な担当科目	●臨床薬学演習　●病態微生物学特論　●特別研究
研究内容	微生物機能の開発とその利用に関する基礎的研究
主な学術論文	● M. Nishimura, S. Kawakami, H. Otsuka: Draft Genome Sequence of *Streptomyces* sp. Strain NL15-2K, a Degrader of Lignin-Derived Aromatic Compounds, Isolated from Forest Soil. (2019) Microbiology Resource Announcement, 8(10), e01456-18 ● M. Nishimura, S. Kawakami, H. Otsuka: Molecular cloning and characterization of vanillin dehydrogenase from *Streptomyces* sp. NL15-2K. (2018) BMC Microbiology, 18:154 ● M. Nishimura, Y. Nishimura, C. Abe, M. Kohhata: Expression and Substrate Range of *Streptomyces* Vanillate Demethylase. (2014) Biological and Pharmaceutical Bulletin, 37(9), 1564-1568

藤原 佐枝子　　博士（医学）

主な担当科目	●病理病態学特論　　●特別研究
研究内容	実臨床における薬剤使用の現状および効果の分析から今後の薬物治療のあり方を明らかにする。
主な学術論文	●Kunihara T, Thomori H, Tsukamoto M, Kobayashi T, Teramoto H, Hamasaki T, Yamasaki T, Nakagawa T, Okimoto N, Fujiwara S Incidence and trend of antiresorptive agent-related osteonecrosis of the jaw from 2016 to 2020 in Kure, Japan. Osteoporosis International https://doi.org/10.1007/s00198-023-06732-8　2023 ●Fujiwara　S,　Buchanan Hughes A,　Ng A,　Page J,　Adachi K, Hong Li H　Real world evaluation of osteoporotic fractures using the Japan Medical Data Vision database　Osteoporosis International (2022) 33:2205-2216 ●Chandran M, Brind’ Amour K, Fujiwara S.et al. Prevalence of osteoporosis and incidence of related fractures in developed economies in the Asia Pacific region: a systematic review. Osteoporos Int (2022) https://doi.org/10.1007/s00198-022-06657-8 4. ●Vandenput L, Johansson H, McClosky EV, Fujiwara S et al. Update of the fracture risk prediction tool FRAX: a systematic review of potential cohorts and analysis plan. Osteoporosis International (2022) 33:2103-2136 ●Fujiwara S, Ishii S, Hamasaki T, Okimoto N Incidence of fractures among patients receiving medications for type 2 diabetes or chronic obstructive pulmonary disease and glucocorticoid users according to the National Claims Database in Japan Archives of Osteoporosis (2021) 16:106 ●Tatsukawa Y, Cordova K, Yamada M, Ohishi W, Imaizumi M, Hida A, Sposto R, Sakata R, Fujiwara S, Nakanishi S, Yoneda M　Incidence of Diabetes in the Atomic Bomb Survivors: 1969-2015　J Clin Endo Metab, 2022

松野　研司　　博士（薬学）

主な担当科目	●分子構造調節学特論　●特別研究
研究内容	新薬創出を指向した医薬化学（創薬化学）研究
主な学術論文	● Niwa, H.; Watanabe, C.; Sato, S.; Harada, T.; Watanabe, H.; Tabusa, R.; Fukasawa, S.; Shiobara, A.; Hashimoto, T.; Ohno, O.; Nakamura, K.; Tsuganezawa, K.; Tanaka, A.; Shirouzu, M.; Honma, T.; Matsuno, K.; Umehara, T. Structure-activity relationship and in silico evaluation of cis- and trans-PCPA-derived inhibitors of LSD1 and LSD2. ACS Med. Chem. Lett. 2022, 13, 1485-1492. ● Kumazawa, M.; Tejima, M.; Fukuda, M.; Takeda, S.; Suzuki, K.; Mizumoto, Y.; Sato, K.; Waki, M.; Miyachi, H.; Asai, A.; Takikawa, O.; Hashimoto, T.; Ohno, O.; Matsuno, K. Discovery of carbono(di)thioates as indoleamine 2,3-dioxygenase 1 inhibitors. ACS Med. Chem. Lett. 2021, 12, 211-216. ● Ohno, O.; Terasaki, T.; Sano, T.; Hitomi, Y.; Miyamoto, J.; Matsuno, K. Inhibitory effects of biseokeaniamide A against lipopolysaccharide-induced signal transduction. Bioorg. Med. Chem. Lett. 2020, 30, Article 127069.

森本 金次郎　　博士（薬学）

主な担当科目	●病態微生物学特論　●特別研究
研究内容	ウイルス増殖と病原性の解析、レクチンによる抗ウイルス薬・抗腫瘍薬の開発、ウイルスベクターを利用した新規組換えワクチンの開発
主な学術論文	●K Kawabata et al.,: Phospholipid analysis of two influenza A virus-infected cell lines differing in viral replication kinetics. Archives of Virology, 168 (5), Article number: 132 (2023). ●Y Matoba, Y Sato et al.,: Lectins engineered to favor a glycan-binding conformation have enhanced antiviral activity. Journal of Biological Chemistry, 296, 100698 (2021). ●Y Sato et al.,: High mannose binding lectin (PFL) from Pseudomonas fluorescens down-regulates cancer-associated integrins and immune checkpoint ligand B7-H4. Cancers, 11, 604 (2019).

薬学研究科薬学専攻　専門分野・教員一覧

山本　秀也	医学博士
主な担当科目	●医療情報解析学特論 ●特別研究
研究内容	内臓脂肪蓄積と冠動脈疾患，冠動脈疾患の新しい画像診断，心疾患の多職種連携・包括的治療
主な学術論文	●Yamamoto H, Fujimoto S, Aoshima C, Minamino T, Fujii T, Wakabayashi S, Urabe Y, Ueda H, Kunita E, Abe M, Higashino H. Feasibility of Simple Evaluation of Coronary Artery Calcium Using a Number of Chest Computed Tomography Slices: A Multicenter Study. Ann Vasc Dis. 2023 Mar 25;16(1):46-53. ●Yamamoto H, Kihara Y, Fujimoto S, Daida H, Kobuke K, Iwanaga Y, Miyazaki S, Kawasaki T, Fujii T, Kuribayashi S. Predictive value of the coronary artery calcium score and advanced plaque characteristics: Post hoc analysis of the PREDICT registry. J Cardiovasc Comput Tomogr. 2021 Mar-Apr;15(2):148-153. ● Mizukawa M, Moriyama M, Yamamoto H, Rahman MM, Naka M, Kitagawa T, Kobayashi S, Oda N, Yasunobu Y, Tomiyama M, Morishima N, Matsuda K, Kihara Y. Nurse-Led Collaborative Management Using Telemonitoring Improves Quality of Life and Prevention of Rehospitalization in Patients with Heart Failure. Int Heart J. 2019 Nov 30;60(6):1293-1302.

■准教授

久保　貴紀※	博士（工学）
主な担当科目	●分子細胞生物学特論
研究内容	次世代型核酸医薬の開発
主な学術論文	●Kubo T, Nishimura Y, Sato Y, Yanagihara K, Seyama T. Sixteen Different Types of Lipid-Conjugated siRNAs Containing Saturated and Unsaturated Fatty Acids and Exhibiting Enhanced RNAi Potency. ACS Chem. Biol. 16, 150-164 (2021). ●Nishimura Y, Kikuchi H, Kubo T, Nakakita I, Oguni M, Ohta M, Arai R, Yuan B, Sunaga K, Cho H. Synthesis of novel 6-unsubstituted 2-aminodihydropyrimidines by Sc(OTf)3-mediated amination and their antiproliferative effect on HL-60 cells. Tetrahedron Letters 65, 152760 (2021). ●Kubo T, Nishimura Y, Hatori Y, Akagi R, Mihara K, Yanagihara K, Seyama T.Antitumor effect of palmitic acid-conjugated DsiRNA for colon cancer in a mouse subcutaneous tumor model. Chem Biol Drug Des., 93, 570-581 (2019).

近藤　慎一	博士（バイオサイエンス）
主な担当科目	●分子神経科学特論　●分子薬理学特論　● 分子生命制御学演習
研究内容	神経系および消化器系疾患発症における細胞応答機構の解明
主な学術論文	●Secretory Function in Subplate Neurons During Cortical Development. Front Neurosci, (2015) ● Activation of OASIS Family, ER Stress Transducers, Is Dependent on Its Stabilization. Cell Death Differ, 19:1939-49 (2012) ● The subventricular zone is the developmental milestone of a 6-layered neocortex: comparisons in metatherian and eutherian mammals. Cereb Cortex, 1939-49 (2010)

佐藤 雄一郎※	博士（学術）
主な担当科目	●分子代謝制御学特論　●分子生命制御学演習
研究内容	高マンノース糖鎖結合性レクチンの抗ウイルス活性、抗腫瘍活性 腫瘍悪性化に関与する免疫チェックポイント関連分子の発現制御機構
主な学術論文	● Matoba Y, Sato Y, Oda K, Hatori Y, Morimoto K.:Lectins engineered to favor a glycan-binding conformation have enhanced antiviral activity. J. Biol. Chem. 296, 100698 (2021). ● Sato Y, Hirayama M, Morimoto K, Hori K.: The OAAH Family: Anti-Influenza Virus Lectins. Methods Mol. Biol. 2132, 683-693(2020). ● Sato Y, Matsubara K, Kubo T, Sunayama H, Hatori Y, Morimoto K, Seyama T.: High mannose binding lectin (PFL) from *Pseudomonas fluorescens* down-regulates cancer-associated integrins and immune checkpoint ligand B7-H4. Cancers, 11, 604 (2019).

薬学研究科薬学専攻　専門分野・教員一覧

的場　康幸　　博士（薬学）	
主な担当科目	●医薬品品質評価学特論　●特別研究
研究内容	抗生物質の合成や耐性に関わるタンパク質や、工業分野で利用できる微生物酵素の三次元構造情報を用い、新規薬剤や新規触媒の開発に応用することを目指している。
主な学術論文	● Matoba Y, Uda N, Kudo M, Sugiyama M. Cyclization mechanism catalyzed by an ATP-grasp enzyme essential for D-cycloserine biosynthesis. FEBS J. 2020, 287, 2763-2778 ● Oda K, Shimotani N, Koroda T, Matoba Y. Crystal structure of an Nω-hydroxy-L-arginine hydrolase found in the D-cycloserine biosynthetic pathway.　Acta Crystallogr. D Struct. Biol. 2020, 76, 506-514 ● Matoba Y, Kihara S, Bando N, Yoshitsu H, Sakaguchi M, Kayama K, Yanagisawa S, Ogura T, Sugiyama M. Catalytic mechanism of the tyrosinase reaction toward the Tyr98 residue in the caddie protein.　PLoS Biol. 2018, 16, e3000077

※氏名横の「※」は研究指導の補助及び授業担当適格者を示す。