

2. 研究業績 / Research Achievements

(April 2021 - March 2022)

2. 1 論文・著書 / Journal Articles/Books/Book Chapters

Journal Articles

- Abd El Baki, H.M. and Fujimaki, H.: An Evaluation of a New Scheme for Determination of Irrigation Depths in the Egyptian Nile Delta. *Water*, 13:2181, doi: 10.3390/w13162181 (Aug., 2021)
- Abd El Baki, H.M. and Fujimaki, H.: Determining Economical Irrigation Depths in a Sandy Field Using a Combination of Weather Forecast and Numerical Simulation. *Water*, 13: 3403, doi: 10.3390/w13233403 (Dec., 2021)
- Abdelgader, A. Z., Musa, L. M. A., Jawasreh, K. I., Tsubo, M., El-Hag, F. M., Saleem, A. O., Kurosaki, Y. and Ahmed, M-K. A.: Conference Paper: Galway Point Mutation (FecXG) in the Bone Morphogenetic Protein 15 Gene (BMP15) is Associated with the Prolificacy of Sudanese Desert Sheep Ecotypes. The 2nd International Conference for Animal Production Sciences and Technologies. Baghdad, Iraq. doi: N/A (Mar., 2021).
- Abdellatef, E., Kamal, N.M. and Tsujimoto, H.: Tuning beforehand: a foresight on RNA interference (RNAi) and in vitro-derived dsRNAs to enhance crop resilience to biotic and abiotic stresses. *International Journal of Molecular Sciences*, 22: 7687, doi: 10.3390/ijms22147687 (Jul., 2021)
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- ## 2.2 会議・シンポジウム・学会発表 /Conferences/Symposium/Presentations
- ### International (国際)
- Abd El Baki, H.M.: Innovative schemes to optimize irrigation depths using numerical simulation and weather forecasts. The Japanese Society of Irrigation, Drainage and Rural Engineering (JSIDRE), 60th of workshop of soil physics section "Management of water, salinity, and nutrient in drylands using numerical models" (Oct., 2021)
- Araki, R., Takano, Y., Miyazaki, H., Ii, H., An, P. and Tanaka U.: Effect of silicon application on grains of Sorghum bicolor under drought conditions. 10th Asian Crop Science Association Conference (ACSAC 10), Online (Sep., 2021)
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- Balla, M.Y., Gorafi, Y.S.A., Kamal, N.M., Tahir, I.S.A. and Tsujimoto, H.: デュラムコムギ派生集団：野生エンマーコムギ由来の新たな遺伝資源. 日本育種学会第 140 回講演会 (オンライン) (2021 年 9 月)
- Berihun, M.L., Tsunekawa, A., Haregeweyn, N. and Fenta, A.A.: Exploring factors controlling gully distribution at contrasting climatic and hydro-ecological environments: a case of Chemoga watershed. JSPS- FNRS Bilateral Project Workshop on “Developing a gully erosion model for better land management” Arid Land Research Center University, Tottori University, Japan (Feb., 2022)
- Berihun, M.L., Tsunekawa, A., Haregeweyn, N., Tsubo, M., Fenta, A.A., Ebabu, K. and Sultan, D.: Modeling the impact of alternative land use and management options in reducing runoff and sediment loss in Ethiopian highlands. Joint Research Symposium, Arid Land Research Center, Tottori University, Japan (Dec.,2021)
- Berihun, M.L.: Soil Erosion & Opportunities of Soil and Water Conservation Practices for Sediment Control at the Grand Ethiopian Renaissance Dam (GERD). The 27th Colloquium, Arid Land Research Center, Tottori University, Japan (Mar. 2022)
- 濱本亨・寺本宗正・Richa, H.U.・谷口武士：鳥取砂丘の異なる植生に伴う土壌微生物群集の変化. 第 69 回日本生態学会大会 (福岡) (2022 年 3 月)
- 濱本亨・須藤重人・西原英治・坪充：Biochar effects on greenhouse gas emissions in tomato planted soils under future climate. 2021 年度土壌肥科学会 (北海道) (2021 年 9 月)
- 濱本亨・寺本宗正・Richa, H.U.・谷口武士：Variations of soil microbial communities along with different vegetation in Tottori sand dune. 第 69 回日本生態学会大会 (福岡) (2022 年 3 月)
- 井町勇登・戸田悠介・大森良弘・山崎裕司・高橋宏和・高梨秀樹・津田麻衣・鐘ヶ江弘美・辻本壽・加賀秋人・平井優美・中園幹生・藤原徹・郭威・岩田洋佳：深層学習を用いた萎れ判別モデルによるダイズの耐乾性の定量化とその遺伝解析. 日本育種学会第 141 回講演会 (オンライン) (2022 年 3 月)
- Itam, M.O., Tsujimoto, H.: パンコムギの暑さと干ばつに強い複合育種：対立遺伝子、代謝産物、水保存機構. 日本育種学会第 141 回講演会 (オンライン) (2022 年 3 月)
- Itam, M.O. and Tsujimoto, H. Combined heat and drought resilience in bread wheat: alleles, metabolites, and water conservation mechanisms. The 141st meeting of the Japanese Society of Breeding, Nara, Japan (Mar., 2022)
- 加藤颯真・Simpson, W.R.・Johnson, R.D.・宇部尚樹・児玉基一郎・石井孝佳・辻本壽：コムギ近縁由来エピクロエ・エンドファイトが共生できるパンコムギシステムの探索とコムギ改良への応用. 日本育種学会第 140 回講演会 (オンライン) (2021 年 9 月)
- 加藤颯真・Simpson, W.R.・Johnson, R.D.・児玉基一郎・石井孝佳・宇部尚樹・辻本壽：パンコムギと *Epichloë* 属糸状菌の完全共生系の確立と共生植物の性質の調査. 第 16 回ムギ類研究会(オンライン) (2021 年 12 月)
- 北里亮・山崎貴裕・奥田泰生・宮崎滉平・木村玲二・高山成：ドローン空撮測量による天然記念物鳥取砂丘の砂面変動の解析. 日本農業気象学会近畿支部 2021 年度大会 (オンライン) (2021 年 12 月)
- 栗山勇輝・木村玲二・森山雅雄：衛星による曇天率の検証と応用—鳥取県での事例—. 日本農業気象学会中国四国支部大会 (オンライン) (2021 年 12 月)
- Liu, J., Kimura, R. and Wu, J.: Structure characteristics of airflow and blown sand flux over fine-grained gravel surfaces in wind tunnel, 日本地球惑星科学連合 (オンライン開催) (2021 年 6 月)
- Liu, J., Kimura, R. and Wu, J.: Monitoring topography changes at the Tottori sand dune using UAV, SfM and GIS techniques. 日本写真測量学会令和 3 年度秋季学術講演会 (帯広) (2021 年 10 月)
- Liu, J., Kimura, R. and Wu, J.: UAV application for topographic changes detection at Tottori sand dunes. 日本農業気象学会中国四国支部大会 (オンライン) (2021 年 12 月)
- 松永幸子・山崎裕司・Gorafi, Y.S.A.・戸田悠介・辻本壽：高温ストレス耐性パンコムギ育種選抜に向けた代謝物質プロファイリング. 日本育種学会第 141 回講演会 (オンライン) (2022 年 3 月)
- 妻鹿良亮*・山崎裕司・辻本壽：自然突然変異コムギ系統群からの節水型耐乾性系統の選抜. 日本育種学会第 141 回講演会 (オンライン) (2022 年 3 月)
- 森本祐未・中原浩貴・森 太郎・近藤謙介・松添直隆：珪

- 鉄とクエン酸添加が青枯病菌の増殖と表現型変異に与える影響. 日本生物環境工学会九州支部会 2021 (Web) (2021 年 12 月)
- 中原浩貴・松添直隆・安 萍: 非塩処理および塩処理条件におけるトマトの生育を促進する細菌菌株の選抜. 農業生産技術管理学会令和 3 年度大会 (Web) (2021 年 10 月)
- 中原浩貴・松添直隆・安 萍: *Pseudomonas* spp. および *Burkholderia* sp. 菌株の接種が非塩処理および塩処理栽培におけるトマトの無機成分吸収に及ぼす影響. 日本土壤微生物学会 2021 年度大会 (Web) (2021 年 6 月)
- 中村瑠莉・寺本宗正・山中典和・梁乃申・ホルチャ海岸: 砂丘における土壌呼吸への水分影響. 日本農業気象学会中国四国支部大会 (オンライン口頭発表) (2021 年 12 月)
- 中村瑠莉・寺本宗正・山中典和・梁乃申・伊藤健彦・ホルチャ: 海岸砂丘における CO₂ フラックスの時空間変動. 第 69 回日本生態学会大会 (オンライン口頭発表) (2022 年 3 月)
- 大上迪士・中山理智・横部智浩・谷口武士・館野隆之輔: 冷温帯林の小集水域における渓流水質と渓流水中の微生物の関係. 第 133 回日本森林学会大会 (山形) (2022 年 3 月)
- 櫻井建吾・戸田悠介・大森良弘・山崎裕司・高橋宏和・高梨秀樹・津田麻衣・石森元幸・辻本壽・加賀秋人・中園幹生・藤原徹・岩田洋佳: ダイズにおける植生指数と干ばつ耐性の遺伝的な関係性を多形質モデルを用いて評価する. 日本育種学会第 140 回講演会 (オンライン) (2021 年 9 月)
- 櫻井建吾・戸田悠介・大森良弘・山崎裕司・高橋宏和・高梨秀樹・津田麻衣・石森元幸・辻本壽・加賀秋人・中園幹生・藤原徹・岩田洋佳: ダイズにおける干ばつ耐性の遺伝変異を植生指数とゲノム情報をもとに予測する. 日本育種学会第 141 回講演会 (オンライン) (2022 年 3 月)
- 佐藤玲菜・中原浩貴・森 太郎・近藤謙介・松添直隆: 青枯病菌の表現型変異に及ぼす鉄化合物とクエン酸添加の影響. 日本生物環境工学会九州支部会 2021 (Web) (2021 年 12 月)
- Sultan, D.: Evaluation of peak runoff response time estimation models in tropical watersheds of Ethiopia. Arid Land Research Center Joint Research ZOOM Conference Dec.4.2021, ALRC, Tottori University, Japan. (Dec., 2021)
- 只野翔大・久瀬川円香・小中隆文・Charles, M.: 辻本壽・明石欣也: ジャトロファ種子バイオ炭の物理化学特性と炭素隔離能力の評価. 第 38 回日本植物バイオテクノロジー学会 (つくば) 大会 (オンライン) (2021 年 9 月)
- 樽谷英賢・Maryenti, T.: 石井孝佳・岡本龍史・辻本壽: 顕微授精によるイネ-コムギ雑種植物の遺伝的解析. 第 16 回ムギ類研究会 (オンライン) (2021 年 12 月)
- 寺本宗正・濱本亨・梁乃申・谷口武士・伊藤健彦・ホルチャ・山中典和: 海浜砂丘における土壌呼吸の時空間変動とその変動メカニズム. 日本地球惑星科学連合 2021 年大会 (オンラインポスター発表) (2021 年 6 月)
- 戸田悠介・濱崎甲資・岡田眞銀・櫻井建吾・藤 佑志郎・大森良弘・山崎裕司・高橋宏和・高梨秀樹・津田麻衣・鐘ヶ江弘美・平井優美・辻本壽・加賀秋人・中園幹生・藤原徹・市橋泰範・岩田洋佳: ダイズの乾燥耐性を対象としたマルチオミクスデータの網羅的ゲノムワイド関連解析. 日本育種学会第 141 回講演会 (オンライン) (2022 年 3 月)
- 留森寿士: 緑化をめぐる諸課題 これから. 第 26 回環境の保全と緑化に関わる資材・技術研究会 (石川 (オンライン参加)) (2022 年 1 月)
- 塚田美彩子・松永幸子・只野翔大・山崎裕司・Gorafi, Y.S.A.: 新田みゆき・那須田周平・明石欣也・辻本壽: パンコムギの高温発芽能力に関する遺伝・整理・生化学的研究. 第 16 回ムギ類研究会 (オンライン) (2021 年 12 月)
- 塚田美彩子・松永幸子・只野翔大・山崎裕司・Yasir S.A. Gorafi・新田みゆき・那須田周平・明石欣也・辻本壽: パンコムギの高温発芽耐性とその遺伝分析. 日本育種学会第 141 回講演会 (オンライン) (2022 年 3 月)
- Weng, Y.: 金俊植・妻鹿良亮・辻本壽・岡本昌憲: コムギにおける乾燥ストレス応答に対する代謝産物の包括的解析. 第 63 回日本植物生理学会年会 (オンライン) (2022 年 3 月)
- Weng, Y.: 金俊植・妻鹿良亮・辻本壽・岡本昌憲: コムギにおける乾燥ストレス応答に対する代謝産物の包括的解析. 日本育種学会第 141 回講演会 (オンライン) (2022 年 3 月)
- Wu, J., Kurosaki, Y.: Non-photosynthetic vegetation cover estimates in drylands from image analysis and remote sensing data. 日本写真測量学会令和 3 年度秋季学術講演会 (北海道) (2021 年 10 月)
- Wu, J., Kurosaki, Y. Gantsetseg, B., Batjargal, B., Ishizuka, M., Sekiyama, M. and Liu, J.: Estimation of non-photosynthetic vegetation amount in the northern Gobi Desert using MODIS satellite data. Japan Geoscience Union Meeting 2021, Online (Jun., 2021)
- Wu, J., Kurosaki, Y., Gantsetseg, B., Ishizuka, M., Sekiyama, T. T., Buyantogtokh, B., and Liu, J.: Estimation of non-photosynthetic vegetation amount in the northern Gobi Desert using MODIS satellite data. 日本地球惑星科学連合 2021 年大会. (オンライン開催) (2021 年 6 月)
- 山崎裕司・松永幸子・戸田悠介・Gorafi, Y.S.A.: 辻本壽: 高温耐性パンコムギ育種選抜に向けた生理学的解析. 日本育種学会第 141 回講演会 (オンライン) (2022 年 3 月)

Invited Lectures (招待講演)

※ International

- Tsunekawa A. 23 SEP 2021. Sustainable land management for climate change mitigation and adaptation through a transdisciplinary approach. 3rd International Conference on Environmental Science and Technology 2021 (EST2021), Ulaanbaatar, Mongolia, 23 SEP 2021
- 石井孝佳: ゲノム編集技術の応用による CRISPR-FISH 法 (RGEN-ISL 法) の開発と 細胞遺伝学への展. 農芸化学会中四国支部 33 回若手シンポジウム (オンライン) (2021 年 10 月)
- 石井孝佳: ゲノム編集で染色体を可視化. 第 72 回染色体学会 (オンライン) (2021 年 9 月)

石井孝佳：CRISPR/Cas9 による新規細胞遺伝学技術の開発. 第 93 回日本遺伝学会(オンライン)(2021 年 9 月)
辻本壽：遺伝資源拡大による高温乾燥耐性コムギ育種. 近畿作物・育種研究会シンポジウム (オンライン)(2021 年 12 月)
辻本壽：JICA-JST SATREPS で挑むスーダンにおけるコムギ育種の新展開. 山口大学農学部生物資源環境科学セミナー (山口県山口市) (2021 年 9 月)
辻本壽：ムギ類フィールド研究のこれまでとこれから. 麦学オンラインセミナー(オンライン)(2021 年 9 月)

2.3 報告書 / Reports

木村玲二：近年における乾燥地の気候学的状況と土地劣化. 沙漠研究, 31(4): 87-93 (2022 年 3 月)
Top Scientist Lecture Course delivery (Arranged by IPDRE office)
Lectures were delivered for 9 Masters students in the Department of Dryland Science, the topic of the lecture was “Land degradation and Impact of Conservation Measures in Reducing Runoff and Soil loss with Special Reference to Ethiopian Agriculture”. The delivery mechanism was “recorded lecture video”, the course comprised 4 recorded video lectures, every record had 90 minutes period, a total time of the recorded video was 360 minutes (6 hrs). Students were evaluated through assignment and reports and final grade marks was given. Period:5-29 Oct., 2021

2.4 公開セミナー / Open Seminar

1) Open seminar

1. **農業生産における世界の気候変動影響と適応【Global Climate Change Impacts and Adaptation in Agricultural Production】(Mar. 22, 2021)**
Toshichika IIZUMI 飯泉 仁之直
Senior Researcher, Institute for Agro-Environmental Sciences, National Agriculture and Food Research Organization
Visiting Professor, Arid Land Research Center, Tottori University
国立研究開発法人農業・食品産業技術総合研究機構・上級研究員
鳥取大学乾燥地研究センター・客員教授

2) Colloquium

26th Colloquium (Jul. 5, 2021)

- (1) **Plant Cytogenetics meet dryland science**
Takayoshi ISHII 石井 孝佳
Junior Associate Professor, Arid Land Research Center, Tottori University
鳥取大学乾燥地研究センター・講師
- (2) **Runoff and sediment response time model evaluation in a tropical climate region, Ethiopia**
Dagnenet Sultan ALEMU
Foreign Research Scholar (Visiting Associate Professor), Arid Land Research Center, Tottori University
鳥取大学乾燥地研究センター・外国人研究員 (客員准教授)

27th Colloquium (Mar. 18, 2022)

- (1) **Developing a new wind erosion assessment system based on characteristics of roughness elements**
Jiaqi LIU 劉 佳啓
Specially Appointed Assistant Professor, Arid Land Research Center, Tottori University
鳥取大学乾燥地研究センター・特命助教
- (2) **Soil Erosion & Opportunities of Soil and Water Conservation Practices for Sediment Control at the Grand Ethiopian Renaissance Dam (GERD)**
Mulatu Liyew BERIHUN
Foreign Research Scholar (Visiting Associate Professor), Arid Land Research Center, Tottori University
鳥取大学乾燥地研究センター・外国人研究員 (客員准教授)

2.5 受賞・特許

恒川篤史

2021年9月18日 バハルダール大学より名誉博士号を授与

受賞

賞の名称：日本育種学会奨励賞

受賞者：石井 孝佳

受賞年月日：2022年3月20日

授与団体：日本育種学会

研究タイトル：雑種胚細胞で起こる染色体脱落の理解と育種の利用

特許

特許番号：PCT/JP2021/041335（出願番号）

特許権者：東京都立大学、鳥取大学

発明者：岡本龍史、マリエンティ テティ、石井孝佳、矢野健太郎

発明の名称：融合細胞、融合細胞の製造方法、細胞塊、植物体及び植物体の製造方法

出願日：2021年10月1日

2.5 Honors and Awards/ Patent

“Certificate of Appreciation” Global Youth Entrepreneurship Challenge (GYEC) 2021, Japan.

Global Competition to tackle desertification were carried out on 29 May 2021- June 11, 2021, Japan; organized by Center for Entrepreneurship Development. Forty-three youth teams from 23 countries for the GYEC 2021 were evaluated. Evaluation process were done in three phases, 1st screening through proposal review and recorded video presentation, 2nd Screening were done again from the top 10 teams with the same criteria, 3rd screening was made by zoom meeting. The judges who were in charge of the 2nd Screening gather online and confirm the results announce the winners (1st, 2nd and 3rd). In recognition of my contribution as a Judge in 2021 GYEC awarded a Certificate of Appreciation. <https://www.entreplanet.org/GYEC/challenge.php>

2.6 外部資金 / External Funds

令和3年度科学研究費補助金 / Grants-in-Aid for Scientific Research in FY2021

研究種目 Research categories	研究代表者 Principal Investigator	研究課題名 Research Title
基盤研究 (B) Scientific Research(B)	木村 玲二 Kimura, Reiji	乾燥地における土地劣化計測システムとモニタリング手法の開発 Development of observation and monitoring system for land degradation in arid regions
		研究分担者 Co-Investigators
基盤研究 (B) Scientific Research(B)	辻本 壽 Tsujiimoto, Hisashi	高度高温耐性コムギ育種のための野生4倍性コムギの遺伝資源発掘と集積効果の研究 Studies on gene mining and pyramiding of wild tetraploid wheat for super heat tolerant bread wheat breeding
		研究分担者 Co-Investigators
国際共同研究加速 基金 (国際共同研 究強化 (B)) Fund for the Promotion of Joint International Research (Fostering Joint International Research (B))	藤巻 晴行 Fujimaki, Haruyuki	土壌塩分輸送シミュレーションモデルを用いた除塩用水量の最適化 Determination of leaching depth using a numerical simulation model of salt movement
		研究分担者 Co-Investigators
国際共同研究加速 基金 (国際共同研 究強化 (B)) Fund for the Promotion of Joint International Research (Fostering Joint International Research (B))	恒川 篤史 Tsunekawa, Atsushi	青ナイル上流域の貯水池への土砂堆積リスクに及ぼす気候変動の影響 Climate change impact on sedimentation risk of reservoirs in the Upper Blue Nile Basin
基盤研究 (C) Scientific Research(C)	谷口 武士 Taniguchi, Takeshi	根部内生微生物群集の形成プロセスを介した乾燥地植物の適応度向上に関する研究 Research on improvement of dryland plant adaptability through the community assembly process of root endophytic microbes
若手研究 Early-Career Scientists	Fenta, Ayele Almwaw	Development of precision estimation method of rainfall erosivity for better understanding of soil erosion in data-sparse regions
若手研究 Early-Career Scientists	石井 孝佳 Ishii, Takayoshi	イネ科亜科間交雑での染色体脱落: 染色体脱落を制御している雄側因子の特定 Chromosome elimination in sub-family distance wide hybridization in poaceae species: elucidate the paternal factor X in chromosome elimination
若手研究 Early-Career Scientists	劉 佳啓 Liu, Jiaqi	草本の幾何学的特性による飛砂抑制評価システムの開発 Develop a new wind erosion assessment system based on geometric characteristics of plants
研究活動スタート 支援 Research Activity Start-up	濱本 亨 Hamamoto, Toru	サブサハラアフリカ農地の炭化物と有機物の併用による炭素蓄積効果とその安定性の解明 Effects of biochar and organic amendment on soil C dynamics in sub-Saharan Africa

研究活動スタート支援 Research Activity Start-up	寺本 宗正 Teramoto, Munemasa	乾燥地における放牧が土壌からの CO2 排出量におよぼす影響の評価 Evaluation of the influence of grazing on soil CO ₂ efflux in arid land
特別研究員奨励費 JSPS Research Fellows	中原 浩貴 Nakahara, Hiroki	非病原性細菌による植物への病害抵抗性と耐塩性の誘導モデルの構築 Development of induction models for disease resistance and salinity tolerance in plants by avirulent bacteria

他機関からの研究分担者／ Co-Investigator

研究種目 Research categories	研究分担者 Co-Investigator	研究課題名 Research Title	研究代表者 Principal Investigator
基盤研究 (A) Scientific Research(A)	黒崎 泰典 Kurosaki, Yasunori	東アジアを越境するバイオエアロゾル：日本本土への拡散・沈着とその生体影響の評価 Long-range transported bioaerosols over East Asia: Dispersion and deposition processes of airborne microorganisms influencing on human healths	牧 輝弥 (近畿大学) Maki, Teruya (Kindai University)
基盤研究 (A) Scientific Research(A)	藤巻 晴行 Fujimaki, Haruyuki	メソスケール物理探査実験技術の開発と深層地盤環境動態の制御に基づく学習への適用 Development of meso-scale experimental technologies of physical sensing and its application on learning based on controlling the dynamism of deep-ground environments	黒田 清一郎 (農業・食品産業技術総合研究機構)
基盤研究 (B) Scientific Research(B)	藤巻 晴行 Fujimaki, Haruyuki	農業工学とコロイド化学の融合を基軸とする土壌・水環境保全技術の展開 Development in soil and water technology with integrating agricultural engineering and colloid science	小林 幹佳 (筑波大学) Kobayashi, Motoyoshi (University of Tsukuba)
基盤研究 (B) Scientific Research(B)	中原 浩貴 Nakahara, Hiroki	トマトの難防除土壌伝染性病害である青枯病と半身萎凋病に対する新しい防除法の確立 Establishment of a new control method for bacterial wilt and Verticillium wilt of hardly controllable soil-borne diseases in tomato	松添 直隆 (熊本県立大学) Matsuzoe, Naotaka (Prefectural University of Kumamoto)
基盤研究 (B) Scientific Research(B)	寺本 宗正 Teramoto, Mune-masa	温暖化がモンゴル寒冷乾燥地の放牧地生態系に与える影響 Effects of global warming on rangeland ecosystems in cold drylands of Mongolia	衣笠 利彦 (鳥取大学) Kinugasa, Toshihiko (Tottori University)
国際共同研究加速基金 (国際共同研究強化 (B)) Fund for the Promotion of Joint International Research (Fostering Joint International Research (B))	石井 孝佳 辻本 壽 Ishii, Takayoshi Tsujiimoto, Hisashi	日本のコムギ研究リソースと国際農業研究機関の連結による新遺伝資源創出と育種展開 New genetic resource development and advanced breeding through connecting the Japanese wheat research resources to a renowned international agricultural research institute	松岡 由浩 (福井県立大学) Matsuoka, Yoshihiro (Fukui Prefectural University)
国際共同研究加速基金 (国際共同研究強化 (B)) Fund for the Promotion of Joint International Research (Fostering Joint International Research (B))	谷口 武士 Taniguchi, Takeshi	塩生植物-微生物共生系を用いた高機能なファイトレメディエーションの創出 Development of highly functional phytoremediation technology using halophytic plant-microbe symbiosis	片岡 良太 (山梨大学) Kataoka, Ryota (University of Yamanashi)

研究種目 Research categories	研究分担者 Co-Investigator	研究課題名 Research Title	研究代表者 Principal Investigator
基盤研究 (C) Scientific Research(C)	木村 玲二 Kimura, Reiji	風食発生の指標となるごく薄い地表面の 土壌水分モデルの開発 Development of soil moisture model of ex- tremely thin ground surface which is an indi- cator and influence for occurrence of wind erosion	鈴木 純 (信州大学) Suzuki, Jun (Shinshu University)
基盤研究 (C) Scientific Research(C)	木村 玲二 Kimura, Reij	景観保全活動が天然記念物鳥取砂丘の砂 移動および植生分布の変動に与える影響 の評価 Evaluation of effectiveness to rehabilitate sand movement and curb grassland encroach- ment by landscape conservation activities at the Tottori Sand Dunes natural monument	高山 成 (大阪工業大学) Takayama, Naru (Osaka Institute of Technology)
基盤研究 (C) Scientific Research(C)	藤巻 晴行 Fujimaki, Haruyuki	物理センサ群を用いた土壌・樹木・大気連 続系における物質移動・貯留特性の解明 Clarification of mass transfer-storage charac- teristic of trees in soil-plant-atmosphere con- tinuum using physical sensors	齊藤 忠臣 (鳥取大学) Saito, Tadaomi (Tottori University)
挑戦的研究 (萌芽) Challenging Research (Exploratory)	石井 孝佳 Ishii, Takayoshi	交雑受精卵の作出およびゲノム動態制御 による C3-C4 光合成細胞質置換 C3-C4 cytoplasmic swapping by production of cross-fertilized eggs and control of genome dynamics	岡本龍史 (東京都立大学) Okamoto, Takashi (Tokyo Metropolitan University)
挑戦的研究 (萌芽) Challenging Research (Exploratory)	石井 孝佳 Ishii, Takayoshi	冷凍保存可能な花粉を活用した新奇ゲノ ム編集技術の開発 Genome editing technology utilizing cryopre- servable pollen	吉田 健太郎 (京都大学) Yoshida, Kentaro (Kyoto University)