

## 業績目録 (令和4年)

大学院科目名：生物統計学

### (B-b) 和文総説

- 1 手良向聡. ベイズ流統計学の臨床試験への応用. 医学のあゆみ「現代の臨床研究のための統計学 2022」 2022;280(5):428-434.
- 2 手良向聡. 日本計量生物学会試験統計家認定制度. 医学のあゆみ「現代の臨床研究のための統計学 2022」 2022;280(5):595-598.
- 3 手良向聡, 安藤友紀, 大門貴志, 長谷川貴大, 松井茂之. 日本計量生物学会の試験統計家認定制度. 月刊「統計」2022年3月号:18-25.
- 4 手良向聡. 共有型意思決定を支える臨床予測モデル. 臨床評価 2022;50;209-219.

### (C-a) 英文原著

- 1 Senoo K, Miki T, Ohkura T, Iwakoshi H, Nishimura T, Shiraishi H, Teramukai S, Matoba S. Smartphone application to improve oral anticoagulation adherence in patients with atrial fibrillation: prospective observational study. JMIR Mhealth Uhealth, 2022;10:e30807. doi: 10.2196/30807. (IF=5.0)
- 2 Ueno M, Toda M, Numa K, Tanaka H, Imai K, Bush J, Teramukai S, Okumura N, Koizumi N, Yamamoto A, Tanaka M, Sotozono C, Hamuro J, Kinoshita S. Superiority of mature differentiated cultured human corneal endothelial cell injection therapy for corneal endothelial failure. American Journal of Ophthalmology 2022;237:267-277. doi: 10.1016/j.ajo.2021.11.012. (IF=4.2)
- 3 Ikeda T, Yamashita T, Akao M, Atarashi H, Koretsune Y, Okumura K, Shimizu W, Tsutsui H, Toyoda K, Hirayama A, Yasaka M, Yamaguchi T, Teramukai S, Kimura T, Kaburagi J, Takita A, Inoue H. Impact of cancer on clinical outcomes in elderly patients with non-valvular atrial fibrillation: Substudy of the ANAFIE Registry. Circulation Journal 2022;86:202-210. doi: 10.1253/circj.CJ-21-0631. (IF=3.3)
- 4 Hiasa K, Kaku H, Kawahara G, Inoue H, Yamashita T, Akao M, Atarashi H, Ikeda T, Koretsune Y, Okumura K, Shimizu W, Toyoda K, Hirayama A, Yasaka M, Yamaguchi T, Teramukai S, Kimura T, Kaburagi J, Takita A,

- Tsutsui H. Echocardiographic structure and function in elderly patients with atrial fibrillation in Japan: The ANAFIE Echocardiographic Substudy. *Circulation Journal*, 2022;86:222-232. doi: 10.1253/circj.CJ-21-0180. (IF=3.3)
- 5 Shoji K, Yanishi K, Kawamata H, Hori Y, Fujioka A, Kohno Y, Kitamura M, Furukawa K, Teramukai S, Nakamura T, Matoba S, AMI-Kyoto Multi-Center Risk Study Group. New risk factors for early- and late-onset cardiac rupture in ST-elevation myocardial infarction patients after primary percutaneous coronary intervention. *Journal of Cardiology* 2022;79:400-407. doi: 10.1016/j.jjcc.2021.10.006. (IF=2.5)
  - 6 Yamashita T, Suzuki S, Inoue H, Akao M, Atarashi H, Ikeda T, Okumura K, Koretsune Y, Shimizu W, Tsutsui H, Toyoda K, Hirayama A, Yasaka M, Yamaguchi T, Teramukai S, Kimura T, Kaburagi J, Takita A. Two-year outcomes of more than 30,000 elderly patients with atrial fibrillation: results from the All Nippon AF In the Elderly (ANAFIE) Registry. *European Heart Journal. Quality of Care and Clinical Outcomes* 2022;8:202-213. doi: 10.1093/ehjqcco/qcab025. (IF=5.2)
  - 7 Akishita M, Suzuki S, Inoue H, Akao M, Atarashi H, Ikeda T, Koretsune Y, Okumura K, Shimizu W, Tsutsui H, Toyoda K, Hirayama A, Yasaka M, Yamaguchi T, Teramukai S, Kimura T, Morishima Y, Takita A, Yamashita T. Frailty and outcomes in older adults with non-valvular atrial fibrillation from the ANAFIE Registry. *Archives of Gerontology and Geriatrics* 2022;101:104661. doi.org/10.1016/j.archger.2022.104661 (IF=4.0)
  - 8 Tamiya M, Fujikawa K, Suzuki H, Yokoyama T, Uenami T, Tamiya A, Sato Y, Saito G, Uchida J, Morita M, Hirashima T, Fukuda Y, Kanazu M, Hosoya K, Iwasawa S, Ueno K, Fujimoto D, Kumagai T, Teramukai S. Classification and regression tree for estimating predictive markers to detect T790M mutations after acquired resistance to first line EGFR-TKI: HOPE-002. *Investigational New Drugs* 2022;40:361-369. doi: 10.1007/s10637-021-01203-5. (IF=3.4)
  - 9 Hirakawa A, Sato H, Igeta M, Fujikawa K, Daimon T, Teramukai S. Regulatory issues and the potential use of Bayesian approaches for early drug approval systems in Japan. *Pharmaceutical Statistics* 2022;21:691-695. doi: 10.1002/pst.2192. (IF=1.5)
  - 10 Maruyama A, Sawa T, Teramukai S, Kato N. Adverse reactions to the

- first and second doses of Pfizer-BioNTech COVID-19 vaccine among healthcare workers. *Journal of Infection and Chemotherapy* 2022;28:934-942. doi: 10.1016/j.jiac.2022.03.015. (IF=2.2)
- 11 Senoo K, Yukawa A, Ohkura T, Shoji K, Takigami M, Iwakoshi H, Nishimura T, Nakata M, Teramukai S, Matoba S. Screening for untreated atrial fibrillation in the elderly population: A community-based study. *PLOS ONE* 2022;17:e0269506. doi: 10.1371/journal.pone.0269506. (IF=3.7)
  - 12 Oki R, Izumi Y, Fujita K, Nodera H, Sato Y, Sakaguchi S, Nokihara h, Kanai K, Tsunemi T, Hatanaka Y, Sonoo M, Atsuta N, Sobue G, Shimizu T, Shibuya K, Ikeda K, Kano O, Nishinaka K, Kojima Y, Oda M, Komai K, Kikuchi H, Kohara N, Urushitani M, Nakayama Y, Ito H, Nagai M, Nishiyama K, Kuzume D, Shimohama S, Shimohata T, Abe K, Ishihara T, Onodera O, Ise S, Morita M, Noda K, Toda T, Maruyama H, Maruyama H, Teramukai S, Kagimura T, Noma K, Yanagawa H, Kuwabara S, Kaji R; JETALS collaborators. Randomized phase 3 trial of high-dose vitamin B12 methylcobalamin in amyotrophic lateral sclerosis. *Lancet Neurology* 2022;79:575-583. doi: 10.1001/jamaneurol.2022.0901 (IF=48.0)
  - 13 Yamazaki S, Doi K, Numata S, Yamano T, Yamano M, Teramukai S, Yaku H. Stress echocardiography after mitral valve repair using a semirigid partial band. *Annals of Thoracic Surgery* 2022;114:126-133. doi: 10.1016/j.athoracsur.2021.07.090. (IF=4.6)
  - 14 Muramatsu A, Kobayashi T, Kawaji-Kanayama Y, Uchiyama H, Sasaki N, Uoshima N, Nakao M, Takahashi R, Shimura K, Kaneko H, Kiyota M, Wada K, Chinen Y, Hirakawa K, Fuchida S, Shimazaki C, Mizutani S, Tsukamoto T, Shimura Y, Taniwaki M, Teramukai S, Kuroda J. and Kyoto Clinical Hematology Study Group (KOTOSG) Investigators. Pretreatment serum level of interleukin-6 predicts carfilzomib-induced hypertension in relapsed/refractory multiple myeloma. *Leukemia and Lymphoma* 2022;63:1678-1685. doi: 10.1080/10428194.2022.2038373. (IF=2.6)
  - 15 Senoo K, Yukawa A, Ohkura T, Iwakoshi H, Nishimura T, Teramukai S, Narumoto J, Matoba S. Depression and quality of life in older adults with atrial fibrillation: A cross-sectional community-based study. *Geriatrics & Gerontology International* 2022;22:505-510. doi: 10.1111/ggi.14397. (IF=3.3)

- 16 Kaneko M, Tsuji K, Masuda K, Ueno K, Henmi K, Nakagawa S, Fujita R, Suzuki K, Inoue Y, Teramukai S, Konishi E, Takamatsu T, Ukimura O. Urine cell image recognition using a deep-learning model for an automated slide evaluation system. *BJU International* 2022;130:235-243. doi: 10.1111/bju.15518. (IF=4.5)
- 17 Yoshimoto T, Toyoda K, Ihara M, Inoue H, Yamashita T, Suzuki S, Akao M, Atarashi H, Ikeda T, Okumura K, Koretsune Y, Shimizu W, Tsutsui H, Hirayama A, Yasaka M, Maruyama H, Teramukai S, Kimura T, Morishima Y, Takita A, Yamaguchi T. Impact of previous stroke on clinical outcome in elderly patients with nonvalvular atrial fibrillation: ANAFIE Registry. *Stroke* 2022;53:2549-2558. doi: 10.1161/STROKEAHA.121.038285. (IF=8.3)
- 18 Iida S, Ishida T, Miyamoto T, Teramukai S, Shirai H, Kanamori R, Tajima Y, Crawford B, Yi J, Teshima T. MEDical Database AnaLysis of Japanese multiple myeloma (MM) patientS with apheresis #2 (MEDALIST 2): The impact of plerixafor use on costs and healthcare resource during mobilization and stem cell transplantation. *International Journal of Hematology* 2022;116:411-422. doi: 10.1007/s12185-022-03356-2. (IF=2.1)
- 19 Katoh N, Saeki H, Kataoka Y, Etoh T, Teramukai S, Takagi H, Fujita H, Ardeleanu M, Rizova E, Arima K, the ADDRESS-J Investigators. Evaluation of standard treatments for managing adult Japanese patients with inadequately controlled moderate-to-severe atopic dermatitis: Two-year data from the ADDRESS-J disease registry. *Journal of Dermatology* 2022;49:903-911. doi: 10.1111/1346-8138.16485. (IF=3.1)
- 20 Sugimoto M, Kato T, Tohi Y, Shimizu Y, Matsumoto R, Inoue T, Takezawa Y, Masui K, Sasaki H, Hiramasa H, Saito S, Egawa S, Kamoto T, Teramukai S, Kojima S, Kikuchi T, Kakehi Y. Enzalutamide in patients with non-metastatic castration-resistant prostate cancer after combined androgen blockade for recurrence following radical treatment in Japan (Japanese research for patients with non-metastatic castration-resistant prostate cancer - enzalutamide: JCASTRE-Zero) — a prospective single-arm interventional study. *BMC Urology* 2022;22:151. doi: 10.1186/s12894-022-01096-3. (IF=2.0)
- 21 Akishita M, Suzuki S, Inoue H, Akao M, Atarashi H, Ikeda T, Koretsune

- Y, Okumura K, Shimizu W, Tsutsui H, Toyoda K, Hirayama A, Yasaka M, Yamaguchi T, Teramukai S, Kimura T, Morishima Y, Takita A, Yamashita T. Frailty screening index and atrial fibrillation outcomes in the All Nippon AF In the Elderly registry. *Geriatrics & Gerontology International* 2022;22:899-902. doi: 10.1111/ggi.14458. (IF=3.3)
- 22 Komai S, Inatomi T, Nakamura T, Ueta M, Horiguchi G, Teramukai S, Kimura Y, Kagimura T, Fukushima M, Kinoshita S, Sotozono C. Long-term outcome of cultivated oral mucosal epithelial transplantation for fornix reconstruction in chronic cicatrizing diseases. *British Journal of Ophthalmology* 2022;106:1355-1362. doi: 10.1136/bjophthalmol-2020-318547. (IF=4.1)
- 23 Noma H, Nagashima K, Kato S, Teramukai S, Furukawa TA. Meta-analysis using flexible random-effects distribution models. *Journal of Epidemiology* 2022;32:441-448. doi: 10.2188/jea.JE20200376. (IF=4.7)
- 24 Nagamine M, Ichii R, Taira T, Teramukai S, Konishi E. Cellular debris on negative liquid-based cytology cervicovaginal smears. *Cytopathology* 2022;33:725-731. doi: 10.1111/cyt.13170. (IF=1.3)
- 25 Okamoto T, Inoue Y, Oi Y, Taniyama I, Houru T, Teramukai S, Hashimoto N. Strategy of carotid artery stenting as first-line treatment and carotid endarterectomy for carotid artery stenosis: A single center experience. *Surgical Neurology International* 2022;13:513. doi: 10.25259/SNI\_820\_2022 (IF=なし)
- 26 Boku H, Kaneko M, Yamada Y, Morinaga Y, Konishi E, Uno A, Ito-Ihara T, Yamada A, Horiguchi G, Teramukai S, Fujihara A, Shiraishi T, Yamada T, Ueda T, Matsugasumi T, Ohashi M, Horiuchi D, Inoue Y, Ukimura O. Microwave focal therapy of prostate cancer: a non-clinical study and exploratory clinical trial. *BJU International* 2022;130:776-785. doi: 10.1111/bju.15749. (IF=4.5)
- 27 Kario K, Hasebe N, Okumura K, Yamashita T, Akao M, Atarashi H, Ikeda T, Koretsune Y, Shimizu W, Suzuki S, Tsutsui H, Toyoda K, Hirayama A, Yasaka M, Yamaguchi T, Teramukai S, Kimura T, Morishima Y, Takita A, Inoue H. Home blood pressure can predict the risk for stroke/bleeding events in elderly patients with nonvalvular atrial fibrillation from the ANAFIE Registry. *Hypertension* 2022;79:2696-2705. doi: 10.1161/HYPERTENSIONAHA.122.19810. (IF=8.3)
- 28 Matsuura Y, Nishimura M, Furuichi K, Hirohashi R, Teramukai S,

- Shimada J, Inoue M. Clinical significance of spread of lipiodol marking for pulmonary nodules and its influence on surgery. *General Thoracic and Cardiovascular Surgery* 2022;70:1015-1021. doi: 10.1007/s11748-022-01842-2 (IF=1.2)
- 29 Shimomura M, Miyagawa-Hayashino A, Omatsu I, Asai Y, Ishihara S, Okada S, Konishi E, Teramukai S, Inoue M. Spread through air spaces is a powerful prognostic predictor in patients with completely resected pathological stage I lung adenocarcinoma. *Lung Cancer*;174:165-171. doi: 10.1016/j.lungcan.2022.11.007. (IF=5.3)
- 30 Okumura K, Yamashita T, Akao M, Atarashi H, Ikeda T, Koretsune Y, Shimizu W, Suzuki S, Tsutsui H, Toyoda K, Hirayama A, Yasaka M, Yamaguchi T, Teramukai S, Kimura T, Morishima Y, Takita A, Inoue H. Oral anticoagulants in very elderly nonvalvular atrial fibrillation patients with high bleeding risks: ANAFIE Registry. *JACC Asia* 2022;2:720-733. doi: 10.1016/j.jacasi.2022.07.008. (IF=7.2)
- 31 Nakata M, Senoo K, Yamaoka M, Kumagai M, Nishimura H, Matoba S, Teramukai S. Effects of longitudinal changes in lifestyle-related risk factors on the incidence of major adverse cardiac and cerebrovascular disease in young adults. *International Heart Journal* 2022;63:1055-1062. doi: 10.1536/ihj.22-317. (IF=1.5)
- 32 Khan KN, Ogawa K, Iwasa K, Kuroboshi H, Okimura H, Koshiha A, Manabe E, Izumi M, Akira S, Kashi AM, Allahqoli L, Tahermanesh K, Matloobi M, Ramasauskaite D, Silkunas M, Cerniauskaite M, Tintara H, Klangsin S, Horiguchi G, Teramukai S, Sawa T, Fushiki S, Itoh K, Nakashima M, Fujishita A, Guo SW, Kitawaki J, Mori T. A targeted educational programme improves fundamental knowledge of menstrual pain and endometriosis in young women: The Endometriosis Awareness Promotion Project. *Reproductive Biomedicine* 2022;45:1216-1229. doi: 10.1016/j.rbmo.2022.07.009. (IF=4.0)
- 33 Annen S, Horiguchi G, Teramukai S, Ichiyama S, Ito M, Hoashi T, Kanda N, Saeki H. Association of transition of laboratory markers with transition of disease activity in psoriasis patients treated with biologics. *Journal of Nippon Medical School* 2022;89:587-593. doi: 10.1272/jnms.JNMS.2022\_89-613. (IF=1.0)
- 34 Yamashita T, Akao M, Atarashi H, Ikeda T, Koretsune Y, Okumura K, Shimizu W, Suzuki S, Tsutsui H, Toyoda K, Hirayama A, Yasaka M,

- Yamaguchi T, Teramukai S, Kimura T, Morishima Y, Takita A, Inoue H. Effect of polypharmacy on clinical outcomes in elderly patients with non-valvular atrial fibrillation: A sub-analysis of the ANAFIE Registry. *Circulation Journal* 2022;87:6-16. doi: 10.1253/circj.CJ-22-0170. (IF=3.3)
- 35 Harada K, Fukuoka H, Ban Y, Aziza Y, Horiguchi G, Tanioka H, Kinoshita S, Uematsu M, Kitaoka T, Sotozono C. Toxicity of amphotericin B in rabbit corneal epithelial cells stored in optisol™-GS: Corneal epithelial cell morphology and migration. *Current Eye Research* 2022;47:1259-1265. doi: 10.1080/02713683.2022.2091147. (IF=2.0)
- 36 Goda T, Suematsu M, Ito H, Horiguchi G, Ikushima R, Matsumura U, Mitsuno K, Morita T, Tanaka S, Tomii T, Kosaka K, Katsumi Y, Goto S, Matsui F, Sato A, Iehra T. Baloxavir marboxil for uncomplicated influenza in children: a multicenter, randomized, non-inferiority trial. *Journal of Hospital General Medicine (JHGM)* 2022;4:203-213. (IF=なし)

(C-b) 和文原著

- 1 北川厚子, 堀口剛, 清水美智子, 廣信麻友美. ヘッドマウント型自動視野計の新しいアルゴリズムによる 検査結果の検討. あたらしい眼科 (第32回 日本緑内障学会 原著) 2022;39(8):92-98.
- 2 平山圭, 合田武司, 堀口剛, 森潤, 木原明生. 中枢性先天性甲状腺機能低下症の診断における乳幼児の血清遊離サイロキシン基準値の検討. *小児科臨床* 2022;75(5):833-838.

(D) 学会発表等

I) 招待講演、特別講演、教育講演等

- 1 手良向聡. 教育講演 統計的意思決定に基づく柔軟な臨床試験デザイン. 日本臨床薬理学会近畿地方会, 2022, WEB 開催.

II) シンポジウム、ワークショップ、パネルディスカッション等

- 1 手良向聡. 試験統計家認定制度の意義、現状、普及啓発について. 2021年度臨床統計シンポジウム「試験統計家認定制度と若手統計家のキャリアパス」, 2022, WEB 開催.
- 2 手良向聡. 共有型意思決定のための臨床予測モデル. LHS 研究所設立 1 周年記念ウェビナー, 2022, WEB 開催.
- 3 手良向聡. 臨床研究データの統計解析: 効果の尺度と予後因子解析の基礎.

- セミナー「臨床研究・統計学を学ぶ for Pharmacist」, 2022, WEB 開催.
- 4 手良向聡. 指定発言. 21 世紀メディカル AI シンポジウム「予測科学としての臨床医学のフロンティア」, 2022, WEB 開催.
  - 5 手良向聡. ヘルスデータサイエンス学会の取り組み. ヘルスデータサイエンス学会設立記念シンポジウム, 2022, WEB 開催.

#### E 研究助成（競争的研究助成金）

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#### 公的助成

分担・小計 186 万 9,231 円

- 1 手良向聡：日本医療研究開発機構・移植医療技術開発研究事業  
令和 2 年～令和 4 年度  
遺伝子関連情報を基軸にした効率的免疫抑制管理による革新的  
長期管理ロジック開発  
助成金額 20 万円
- 2 手良向聡：日本医療研究開発機構・医療機器開発推進研究事業  
令和 3 年～令和 5 年度  
医療費適正化に資する前立腺癌病巣標的化凍結治療：医師主導  
治験
- 3 手良向聡：日本医療研究開発機構・難治性疾患実用化研究事業  
令和 3 年～令和 5 年度  
SJS/TEN 眼合併症の診断および治療の質的向上に関する実践的  
研究  
助成金額 90 万円
- 4 手良向聡：日本医療研究開発機構・臨床研究・治験推進研究事業  
（生物統計家育成推進事業）  
令和 4 年度  
東京大学大学院における生物統計家育成のための卒後教育まで  
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