

## 総論

## 一般論

## 2. ICD/DSM

- 1) American Psychiatric Association (2014) DSM-5 精神疾患の分類と診断の手引. 高橋三郎/大野裕監訳, 医学書院, 東京.

## 3. 研究倫理

- 1) ICMJE (2017) 生物医学雑誌への統一投稿規定. [https://www.honyakucenter.jp/usefulinfo/uniform\\_requirements2018.html](https://www.honyakucenter.jp/usefulinfo/uniform_requirements2018.html). アクセス 2020.12.27.

## 4. 橋渡し研究

- 1) Soda M, Choi YL, Enomoto M, et al (2007) Identification of the transforming EML4-ALK fusion gene in non-small-cell lung cancer. *Nature*, 448 (7153) : 561-566.
- 2) Soda M, Takada S, Takeuchi K, et al (2008) A mouse model for EML4-ALK-positive lung cancer. *Proc Natl Acad Sci USA*, 105 (50) : 19893-19897.
- 3) Keshavan MS, Lawler AN, Nasrallah HA, et al (2017) New drug developments in psychosis : Challenges, opportunities and strategies. *Prog Neurobiol*, 152 : 3-20.
- 4) Insel TR (2014) The NIMH Research Domain Criteria (RDoC) Project : precision medicine for psychiatry. *Am J Psychiatry*, 171 (4) : 395-397.

## 5. 計算論的精神医学

- 1) Redish AD and Gorden JA Eds (2016) Computational psychiatry : New perspectives on mental illness. MIT Press, Cambridge, MA.
- 2) 国里愛彦, 片平健太郎, 沖村宰, 他 (2019) 計算論的精神医学 : 情報処理過程から読み解く精神障害. 勁草書房, 東京.
- 3) Clementz BA, Sweeney JA, Hamm JP, et al (2016) Identification of distinct psychosis biotypes using brain-based biomarkers. *Am J Psychiatry*, 173 (4) : 373-384.
- 4) Yamashita Y and Tani J (2012) Spontaneous prediction error generation in schizophrenia. *PLoS ONE*, 7 : e37843.
- 5) Voon V, Derbyshire K, Rück C, et al (2015) Disorders of compulsivity : a common bias towards learning habits. *Mol Psychiatry*, 20 : 345-352.

## 6. 疫学研究

- 1) 中村好一 (2020) 基礎から学ぶ楽しい疫学 第4版. 医学書院, 東京.

## 7. 中間表現型/バイオタイプ

- 1) Callicott JH, Egan MF, Bertolino A, et al (1998) Hippocampal N-acetyl aspartate in unaffected siblings of patients with schizophrenia : a possible intermediate neurobiological phenotype. *Biol Psychiatry*, 44 (10) : 941-950.
- 2) 橋本亮太 (2016) 精神疾患の中間表現型研究. *日本神経精神薬理学雑誌*, 36 (1) : 1-7.
- 3) Hashimoto R, Ikeda M, Ohi K, et al (2013) Genome-wide association study of cognitive decline in schizophrenia. *Am J Psychiatry*, 170 (6) : 683-684.
- 4) Insel T, Cuthbert B, Garvey M, et al (2010) Research domain criteria (RDoC) : toward a new classification framework for research on mental disorders. *Am J Psychiatry*, 167 (7) : 748-751.
- 5) 橋本亮太 (2016) Reserch Domain Criteria (RDoC) の立場から未来への展望, 精神科診断学のあるべき方向性. *精神科診断学*, 9 (1) : 53-58.

## 8. 社会実装研究

- 1) 島津太一 (2020) 研究から得られたエビデンスを日常臨床に届けるために必要な戦略. *精神医学*, 62 (1) : 73-82.
- 2) 日本神経精神薬理学会 (2022) 統合失調症薬物治療ガイドライン. 医学書院, 東京.
- 3) Ichihashi K, Hori H, Hasegawa N, et al (2020) Prescription patterns in patients with schizophrenia in Japan : first-quality indicator data from the survey of “Effectiveness of Guidelines for Dissemination and Education in psychiatric treatment (EGUIDE)” project. *Neuropsychopharmacol Rep*, 40 (3) : 281-286.
- 4) Takaesu Y, Watanabe K, Numata S, et al (2019) Improvement of psychiatrists' clinical knowledge of the treatment guidelines for schizophrenia and major depressive disorders using the “Effectiveness of Guidelines for Dissemination and Education in psychiatric treatment (EGUIDE)” project : a nationwide dissemination, education and evaluation study. *Psychiatry Clin Neurosci*, 73 (10) : 642-648.
- 5) Giralanda F, Fiedler I, Becker T, et al (2017) The evidence-practice gap in specialist mental healthcare : systematic review and meta-analysis of guideline implementation studies, *Br J Psychiatry*, 210 (1) : 24-30.

## 9. パラメトリック

- 1) 東京大学教養学部統計学教室 (1991) 統計学入門. 東京大学出版会, 東京.
- 2) 岸学 (2005) SPSS によるやさしい統計学. オーム社. 東京.

## 10. ノンパラメトリック

- 1) 広中平祐 : 編集委員会代表 (2009) 現代数理科学辞典 第2版. 丸善出版, 東京.
- 2) ディビット・サルツブルグ著, 竹内恵行, 熊谷悦生訳 (2010) 統計学を拓いた異才たち. 日本経済新聞出版社, 東京.

## 12. 多変量解析

- 1) 柳川堯, 荒木由布子 (2010) バイオ統計の基礎. バイオ統計シリーズ1 (柳川堯, 赤澤宏平, 折笠秀樹, 他編). 近代科学社, 東京.
- 2) 中村永友 (2009) 多次元データ解析法. Rで学ぶデータサイエンス2 (金明哲編). 共立出版, 東京.
- 3) James G, Witten D, Hastie T, et al (2017) An Introduction to statistical learning with application in R. Springer. (落海浩, 首藤信道訳 [2018] Rによる統計的学習入門. 朝倉書店, 東京.)
- 4) 小西貞則 (2010) 多変量解析入門. 岩波書店, 東京.

## 13. メタ解析

- 1) Wessely S, Everitt BS 著 樋口輝彦, 山田光彦監訳 中川敦夫, 米本直裕訳 (2011) ロンドン大学精神医学研究所に学ぶ精神科臨床試験の実践. 医学書院, 東京.
- 2) 木原雅子, 木原正博訳 (2014) 医学的研究のデザイン 研究の質を高める疫学的アプローチ 第4版. メディカルサイエンスインターナショナル, 東京.
- 3) National Institute for Health Research : PROSPERO International prospective register of systematic reviews. <https://www.crd.york.ac.uk/prospERO/>.
- 4) Page MJ, McKenzie JE, Bossuyt PM, et al (2021) The PRISMA 2020 statement : an updated guideline for reporting systematic reviews. BMJ, 372 : n71.
- 5) Mizuno Y, Suzuki T, Nakagawa A, et al (2014) Pharmacological strategies to counteract antipsychotic-induced weight gain and metabolic adverse effects in schizophrenia : a systematic review and meta-analysis. Schizophr Bull, 40 (6) : 1385-1403.

## 14. 機械学習

- 1) 豊田秀樹 (2008) マルコフ連鎖モンテカルロ法. 朝倉書店, 東京.
- 2) 福島邦彦 (1989) 神経回路と情報処理. 朝倉書店, 東京.
- 3) Silver D, Huang A, Maddison CJ, et al (2016) Mastering the game of Go with deep neural networks and tree search. Nature, 529 : 484-

- 489.
- 4) 甘利俊一 (1978) 神経回路網の数理—脳の情報処理様式. 産業図書, 東京.

## 各論

### 神経解剖

#### 15. シナプス

- 1) Matsuzaki M, Ellis-Davies GC, Nemoto T, et al (2001) Dendritic spine geometry is critical for AMPA receptor expression in hippocampal CA1 pyramidal neurons. *Nat Neurosci*, 4 (11): 1086–1092.
- 2) Hayashi-Takagi A, Yagishita S, Nakamura M, et al (2015) Labelling and optical erasure of synaptic memory traces in the motor cortex. *Nature*, 525 (7569): 333–338.

#### 16. ニューロン

- 1) Jones EG (1984) Laminar distribution of cortical efferent cells. In: *Cerebral Cortex: vol 1: Cellular components of the cerebral cortex* (Peters A, Jones EG Eds). Plenum Press, NY, pp521–553.
- 2) Hodge RD, Bakken TE, Miller JA, et al (2019) Conserved cell types with divergent features in human versus mouse cortex. *Nature*, 573 (7772): 61–68.
- 3) Tremblay R, Lee S and Rudy B (2016) GABAergic interneurons in the neocortex: From cellular properties to circuits. *Neuron*, 91 (2): 260–292.
- 4) Krienen FM, Goldman M, Zhang Q, et al (2020) Innovations present in the primate interneuron repertoire. *Nature*, 586 (7828): 262–269.

#### 17. グリア

- 1) Wake H, Moorhouse AJ, Jinno S, et al (2009) Resting microglia directly monitor the functional state of synapses in vivo and determine the fate of ischemic terminals. *J Neurosci*, 29 (13): 3974–3980.
- 2) Li Q and Barres BA (2019) Microglia and macrophages in brain homeostasis and disease. *Nat Rev Immunol*, 18 (4): 225–242.

#### 18. 前頭前野

- 1) AR ルリヤ著, 鹿島晴雄訳 (1999) ルリヤ 神経心理学の基礎—脳のはたらき 第2版. 創造出版, 東京.
- 2) 加藤元一郎 (2012) 前頭葉機能障害. *老年精神医学雑誌*, 23 (9): 1134–1140.
- 3) 渡邊正孝 (2016) 前頭連合野のしくみとはたらき. *高次脳機能研究*, 36 (1): 1–8.
- 4) 梅田聡 (2020) 「ど忘れ」と「し忘れ」の認知神経メカニズム. 老

年精神医学雑誌, 31 (2) : 143-148.

## 19. 海馬

- 1) Andersen P, Morris R, Amaral DG, et al (2006) The hippocampus book. Oxford University Press, NY, pp3-852.
- 2) Scoville WB and Milner B (1957) Loss of recent memory after bilateral hippocampal lesions. *J Neurol Neurosurg Psychiatry*, 20 (1) : 11-21.
- 3) O'Keefe J and Dostrovsky J (1971) The hippocampus as a spatial map. Preliminary evidence from unit activity in the freely-moving rat. *Brain Res*, 34 (1) : 171-175.
- 4) Okuyama T, Kitamura T, Roy DS, et al (2016) Ventral CA1 neurons store social memory. *Science*, 353 (6307) : 1536-1541.
- 5) Jimenez JC, Su K, Goldberg AR, et al (2018) Anxiety cells in a hippocampal-hypothalamic circuit. *Neuron*, 97 (3) : 670-683.

## 20. 扁桃體

- 1) LeDoux JE (2000) Emotion circuits in the brain. *Annu Rev Neurosci*, 23 : 155-184.
- 2) Wassum KM and Izquierdo A (2015) The basolateral amygdala in reward learning and addiction. *Neurosci Biobehav Rev*, 57 : 271-283.
- 3) Nagase M, Mikami K, and Watabe AM(2019)Parabrachial-to-amygdala control of aversive learning. *Curr Opin Behav Sci*, 26 : 18-24.

## 21. 島皮質/帯状皮質

- 1) Menon V and Uddin LQ (2010) Saliency, switching, attention and control : a network model of insula function. *Brain Struct Funct*, 214 : 655-667.
- 2) Seeley WW, Menon V, Schatzberg AF, et al(2007)Dissociable intrinsic connectivity networks for salience processing and executive control. *J Neurosci*, 27 : 2349-2356.
- 3) Sherrington CS (1906) The integrative action of the nervous system. Yale University Press, New Haven.

## 22. 大脳基底核

- 1) Alexander GE and Crutcher MD (1990) Functional architecture of basal ganglia circuits : neural substrates of parallel processing. *Trends Neurosci*, 13 (7) : 266-271.
- 2) Schultz W, Dayan P and Montague PR (1997) A neural substrate of prediction and reward. *Science*, 275 (5306) : 1593-1599.
- 3) Hikida T, Kimura K, Wada N, et al (2010) Distinct roles of synaptic transmission in direct and indirect striatal pathways to reward and aversive behavior. *Neuron*, 66 (6) : 896-907.
- 4) Macpherson T and Hikida T (2019) Role of basal ganglia neurocir-

cuitry in the pathology of psychiatric disorders. *Psychiatry Clin Neurosci*, 73 (6) : 289–301.

- 5) Okada N, Fukunaga M, Yamashita F, et al (2016) Abnormal asymmetries in subcortical brain volume in schizophrenia. *Mol Psychiatry*, 21 (10) : 1460–1466.

### 23. 視床下部

- 1) Chemelli RM, Willie JT, Sinton CM, et al (1999) Narcolepsy in orexin knockout mice : molecular genetics of sleep regulation. *Cell*, 98 (4) : 437–451.
- 2) Peyron C, Faraco J, Rogers W, et al (2000) A mutation in a case of early onset narcolepsy and a generalized absence of hypocretin peptides in human narcoleptic brains. *Nat Med*, 6 (9) : 991–997.
- 3) Nakazato M, Murakami N, Date Y, et al (2001) A role for ghrelin in the central regulation of feeding. *Nature*, 409 (6817) : 194–198.
- 4) Pariante CM and Lightman SL (2008) The HPA axis in major depression : classical theories and new developments. *Trends Neurosci*, 31 (9) : 464–468.

### 24. 小脳

- 1) Kandel E, Schwartz J, Jessell T, et al (2012) Principles of neural science, 5th ed, McGraw–Hill Professional.
- 2) Strick PL, Dum RP and Fiez JA (2009) Cerebellum and nonmotor function. *Annu Rev Neurosci*, 32 : 413–434.
- 3) Yuzaki M (2013) Cerebellar LTD vs. motor learning—lessons learned from studying GluD2. *Neural Netw*, 47 : 36–41.
- 4) Schmahmann JD, Guell X, Stoodley CJ, et al (2019) The theory and neuroscience of cerebellar cognition. *Annu Rev Neurosci*, 42 : 337–364.
- 5) Ito M (2008) Control of mental activities by internal models in the cerebellum. *Nat Rev Neurosci*, 9 (4) : 304–313.

## 薬理

### 25. アルコール依存症治療薬 (抗酒剤, 飲酒欲求低減薬, 飲酒量低減薬)

- 1) Garbutt JC, West SL, Carey TS, et al (1999) Pharmacological treatment of alcohol dependence : a review of the evidence. *JAMA*, 281 (14) : 1318–1325.
- 2) Moreno A, Vazquez JJ, Ruizdel Arbol L, et al (1984) Structural hepatic changes associated with cyanamide treatment : cholangiolar proliferation, fibrosis and cirrhosis. *Liver*, 4 (1) : 15–21.
- 3) Rösner S, Hackl–Herrwerth A, Leucht S, et al (2010) Acamprosate for alcohol dependence. *Cochrane Database Syst Rev*, (9) : CD004332.
- 4) Rösner S, Hackl–Herrwerth A, Leucht S, et al (2010) Opioid antag-

- onists for alcohol dependence. *Cochrane Database Syst Rev*, (12) : CD001867.
- Keating GM (2013) Nalmefene : a review of its use in the treatment of alcohol dependence. *CNS Drugs*, 27 (9) : 761-772.
- 26. グルタミン酸/グルタミン酸受容体**
- 日本臨床精神神経薬理学会専門医制度委員会 (2021). 専門医のための臨床精神神経薬理学テキスト. 星和書店, 東京.
  - 鈴木岳之, 都筑馨介, 亀山仁彦, 他 (2003) AMPA 受容体の生理機能-受容体機能発現から疾患まで. *日本薬理学雑誌*, 122 ; 515-526.
  - Takahashi T, Svoboda K and Malinow R(2003). Experience strengthening transmission by driving AMPA receptors into synapses. *Science*, 299 (5612) ; 1585-1588.
  - Miyazaki T, Nakajima W, Hatano M, et al (2020) Visualization of AMPA receptors in living human brain with positron emission tomography. *Nat Med*, 26 (2) : 281-288.
  - Maksymetz J, Moran SP and Conn PJ(2017)Targeting metabotropic glutamate receptors for novel treatments of schizophrenia. *Mol Brain*, 26 ; 10 (1) : 15.
- 27. クロザピン/治療抵抗性/超治療抵抗性**
- Leucht S, Cipriani A, Spineli L, et al(2013)Comparative efficacy and tolerability of 15 antipsychotic drugs in schizophrenia : a multiple-treatments meta-analysis. *Lancet*, 382 (9896) : 951-962.
  - Griffiths JJ, Zarate CA Jr and Rasimas JJ (2014) Existing and novel biological therapeutics in suicide prevention. *Am J Prev Med*, 47 (3 Suppl 2) : S195-203.
  - Kane J, Honigfeld G, Singer J, et al (1988) Clozapine for the treatment-resistant schizophrenic. A double-blind comparison with chlorpromazine. *Arch Gen Psychiatry*, 45 (9) : 789-796.
  - クロザリル適正使用委員会. <http://www.clozaril-tekisei.jp/index.html>. アクセス 2020.12.13.
  - Howes OD, McCutcheon R, Agid O, et al (2017) Treatment-resistant schizophrenia : Treatment Response and Resistance in Psychosis (TRRIP) working group consensus guidelines on diagnosis and terminology. *Am J Psychiatry*, 174 (3) : 216-229.
- 28. ケタミン**
- Berman RM, Cappiello A, Anand A, et al (2000) Antidepressant effects of ketamine in depressed patients, *Biol Psychiatry*, 47 (4) : 351-354.
  - Grunebaum MF, Galfalvy HC, Choo T, et al(2018)Ketamine for rapid reduction of suicidal thoughts in major depression : A midazolam-controlled randomized clinical trial, *Am J Psychiatry*, 175(4) : 327-

- 335.
- 3) Papadimitropoulou K, Vossen C, Karabis A, et al (2017) Comparative efficacy and tolerability of pharmacological and somatic interventions in adult patients with treatment-resistant depression : a systematic review and network meta-analysis, *Curr Med Res Opin*, 33 (4) : 701-711.
  - 4) Sakurai H, Jain F, Foster S, et al (2020) Long-term outcome in outpatients with depression treated with acute and maintenance intravenous ketamine : A retrospective chart review, *J Affect Disord*, 276 : 660-666.
29. ファーマコメトリクス
- 1) Ito K, Ahadiel S, Corrigan B, et al (2010) Disease progression meta-analysis model in Alzheimer's disease. *Alzheimer's Dement*, 6 (1) : 39-53.
  - 2) Ito K, Corrigan B, Zhao Q, et al (2011) Disease progression model for cognitive deterioration from Alzheimer's disease neuroimaging initiative database. *Alzheimer's Dement*, 7 (2) : 151-160.
  - 3) Friberg L, Greef R, Kerbusch T, et al (2009) Modeling and simulation of the time course of asenapine exposure response and dropout patterns in acute schizophrenia. *Clin Pharmacol Ther*, 86 (1) : 84-91.
  - 4) Kimko HC, Reece SSB, Holford NHG, et al (2000) Prediction of the outcome of a phase 3 clinical trial of an antischizophrenic agent (quetiapine fumarate) by simulation with a population pharmacokinetic and pharmacodynamic model. *Clin Pharmacol Ther*, 68 (5) : 568-577.
  - 5) Vu TC, Nutt JG and Holford NHG (2012) Disease progress and response to treatment as predictors of survival, disability, cognitive impairment and depression in Parkinson's disease. *Br J Clin Pharmacol*, 74 (2) : 284-295.
30. PK-PD
- 1) 緒方宏泰 編著, 増原慶壮, 松本宜明, 木島慎一 著, 他 (2015) 臨床薬物動態学 第3版. 丸善出版, 東京.
  - 2) 鈴木映二著, 加藤隆一 監 (2013) 向精神薬の薬物動態学—基礎から臨床まで—. 星和書店, 東京.
  - 3) Stingl JC, Brockmöller J and Viviani R (2013) Genetic variability of drug-metabolizing enzymes : the dual impact on psychiatric therapy and regulation of brain function. *Mol Psychiatry*, 18 (3) 273-287.
  - 4) 稲田健編 (2018) 本当にわかる精神科の薬 はじめの一步 改訂版. 羊土社, 東京.



### 31. Neuroscience-based Nomenclature (NbN)

- 1) 内田裕之, 山脇成人 (2016) 向精神薬の新しい命名法 (Neuroscience-based Nomenclature). 日本神経精神薬理学雑誌, 36 (3) : 69-71.
- 2) Zohar J, Stahl S, Moller HJ, et al (2015) A review of the current nomenclature for psychotropic agents and an introduction to the Neuroscience-based Nomenclature. Eur Neuropsychopharmacol, 25 (12) : 2318-2325.

### 32. GABA/GABA 受容体

- 1) 仙波純一, 松浦雅人, 太田克也監訳 (2015) ストール精神薬理学エッセンシャルズ 神経科学的基礎と応用 第4版. メディカル・サイエンス・インターナショナル, 東京.
- 2) Fritschy JM (2008) Epilepsy, E/I Balance and GABA<sub>A</sub> Receptor Plasticity. Front Mol Neurosci, 1 : 5.
- 3) Uhlhaas PJ and Singer W (2012) Neuronal dynamics and neuropsychiatric disorders : toward a translational paradigm for dysfunctional large-scale networks. Neuron, 75 (6) : 963-980.
- 4) Jacob TC, Moss SJ and Jurd R (2008) GABA<sub>A</sub> receptor trafficking and its role in the dynamic modulation of neuronal inhibition. Nat Rev Neurosci, 9 (5) : 331-343.
- 5) Olsen RW and Sieghart W (2008) International Union of Pharmacology. LXX. Subtypes of gamma-aminobutyric acid<sub>A</sub> receptors : classification on the basis of subunit composition, pharmacology, and function. Update. Pharmacol Rev, 60 (3) : 243-260.
- 6) Tremblay R, Lee S and Rudy B (2016) GABAergic Interneurons in the Neocortex : From Cellular Properties to Circuits. Neuron, 91 (2) : 260-292.

### 33. 母集団薬物動態

- 1) 一般社団法人日本臨床薬理学会編 (2017) 臨床薬理学第4版. 医学書院.
- 2) 網崎孝志 (2002) 母集団薬物動態解析における統計学的推論 日本計算機統計学会シンポジウム論文集, 16 : 135-144. [https://www.jstage.jst.go.jp/article/jscssymo/16/0/16\\_135/\\_article/-char/ja](https://www.jstage.jst.go.jp/article/jscssymo/16/0/16_135/_article/-char/ja).
- 3) Uchida H, Mamo DC, Pollock BG, et al (2012) Predicting plasma concentration of risperidone associated with dosage change : a population pharmacokinetic study. Ther Drug Monit, 34 (2) : 182-187.
- 4) Nakajima S, Uchida H, Bies RR, et al (2016) Dopamine D2/3 Receptor Occupancy Following Dose Reduction Is Predictable With Minimal Plasma Antipsychotic Concentrations : An Open-Label Clinical Trial. Schizophr Bull, 42 (1) : 212-219.

### 34. D2 受容体遮断を伴わない抗精神病薬候補

- 1) Kitten AK, Hollowell SA, Saklad SR, et al (2018) Pimavanserin : A Novel Drug Approved to Treat Parkinson's Disease Psychosis. *Innov Clin Neurosci*, 15 (1-2) : 16-22.
- 2) Koblán KS, Kent J, Hopkins SC, et al (2020) A Non-D2-Receptor-Binding Drug for the Treatment of Schizophrenia. *N Engl J Med*, 382 (16) : 1497-1506.

## ゲノム

### 35. 全ゲノム関連研究

- 1) Trubetskoy V, Pardiñas AF, Qi T, et, al (2022) Mapping genomic loci implicates genes and synaptic biology in schizophrenia. *Nature*, 604 : 502-508.
- 2) Mullins N, Forstner AJ, O'Connell KS, et al (2021) Genome-wide association study of more than 40,000 bipolar disorder cases provides new insights into the underlying biology. *Nat Genet*, 53 (6) : 817-829.
- 3) Howard DM, Adams MJ, Clarke TK, et al (2019) Genome-wide meta-analysis of depression identifies 102 independent variants and highlights the importance of the prefrontal brain regions. *Nat Neurosci*, 22 (3) : 343-352.

### 36. 全エクソームシーケンス/全ゲノムシーケンス

- 1) Kiser DP, Rivero O and Lesch KP (2015) Annual research review : The (epi) genetics of neurodevelopmental disorders in the era of whole-genome sequencing—unveiling the dark matter. *J Child Psychol Psychiatry*, 56 (3) : 278-295.
- 2) Richards S, Aziz N, Bale S, et al (2015) Standards and guidelines for the interpretation of sequence variants : a joint consensus recommendation of the American College of Medical Genetics and Genomics and the Association for Molecular Pathology. *Genet Med*, 17 (5) : 405-424.
- 3) Satterstrom FK, Kosmicki JA, Wang J, et al (2020) Large-scale exome sequencing study implicates both developmental and functional changes in the neurobiology of autism. *Cell*, 180 (3) : 568-584. e23.
- 4) Vorstman JAS, Parr JR, Moreno-De-Luca D, et al (2017) Autism genetics : opportunities and challenges for clinical translation. *Nat Rev Genet*, 18 (6) : 362-376.
- 5) Kimura H, Mori D, Aleksic B, et al (2021) Elucidation of molecular pathogenesis and drug development for psychiatric disorders from rare disease-susceptibility variants. *Neurosci Res*, 170 : 24-31.

### 37. 薬理遺伝学/ゲノム薬理学

- 1) Pain O, Hodgson K, Trubetskoy V, et al (2020) Antidepressant response in major depressive disorder : A genome-wide association study. medRxiv. doi : 10.1101/2020.12.11.20245035
- 2) Saito T, Ikeda M, Mushiroda T, et al (2016) Pharmacogenomic study of clozapine-Induced agranulocytosis/granulocytopenia in a Japanese population. *Biol Psychiatry*, 80 (8) : 636-642.
- 3) Mushiroda T, Takahashi Y, Onuma T, et al (2018) Association of HLA-A\*31 : 01 screening with the incidence of carbamazepine-induced cutaneous adverse reactions in a Japanese population. *JAMA Neurol*, 75 (7) : 842-849.
- 4) Milosavljevic F, Bukvic N, Pavlovic Z, et al (2021) Association of CYP2C19 and CYP2D6 poor and intermediate metabolizer status with antidepressant and antipsychotic exposure : A systematic review and meta-analysis. *JAMA Psychiatry*, 78 (3) : 270-280.

### 38. ゲノムコピー数変異

- 1) Zarrei M, MacDonald JR, Merico D, et al (2015) A copy number variation map of the human genome. *Nat Rev Genet*, 16 (3) : 172-183.
- 2) Malhotra D and Sebat J (2012) CNVs : harbingers of a rare variant revolution in psychiatric genetics. *Cell*, 148(6) : 1223-1241.
- 3) Nakatochi M, Kushima I and Ozaki N (2021) Implications of germline copy-number variations in psychiatric disorders : review of large-scale genetic studies. *J Hum Genet*, 66 (1) : 25-37.
- 4) Rees E, Walters JTR, Georgieva L, et al (2014) Analysis of copy number variations at 15 schizophrenia-associated loci. *Br J Psychiatry*, 204 (2) : 108-114.
- 5) Forsingdal A, Jorgensen TN, Olsen L, et al (2019) Can animal models of copy number variants that predispose to schizophrenia elucidate underlying biology? *Biol Psychiatry*, 85 (1) : 13-24.

### 39. DNAメチル化

- 1) Richetto J and Meyer U (2020) Epigenetic modifications in schizophrenia and related disorders : Molecular scars of environmental exposures and source of phenotypic variability. *Biol Psychiatry*, 89 (3) : 215-226.

### 40. Polygenic risk score

- 1) International Schizophrenia C, Purcell SM, Wray NR, et al (2009) Common polygenic variation contributes to risk of schizophrenia and bipolar disorder. *Nature*, 460 (7256) : 748-752.
- 2) Ripke S, Walters J, O'Donovan M on behalf of schizophrenia working group of the psychiatric genomics consortium (2020) Mapping genomic loci prioritises genes and implicates synaptic biology in

schizophrenia. medRxiv. doi:10.1101/2020.09.12.20192922.

- 3) Ikeda M, Saito T, Kanazawa T, et al (2021) Polygenic risk score as clinical utility in psychiatry : a clinical viewpoint. *J Hum Genet*, 66 (1) : 53–60.

#### 41. 遺伝的相関

- 1) Zheng J, Erzurumluoglu AM, Elsworth BL, et al (2017) LD Hub : A centralized database and web interface to perform LD score regression that maximizes the potential of summary level GWAS data for SNP heritability and genetic correlation analysis. *Bioinformatics*, 33 (2) : 272–279.
- 2) Bulik-Sullivan B, Finucane HK, Anttila V, et al (2015) An atlas of genetic correlations across human diseases and traits. *Nat Genet*, 47 (11) : 1236–1241.
- 3) Anttila V, Bulik-Sullivan B, Finucane HK, et al (2018) Analysis of shared heritability in common disorders of the brain. *Science*, 360 (6395) : eaap8757.
- 4) Smoller JW, Andreassen OA, Edenberg HJ, et al (2019) Psychiatric genetics and the structure of psychopathology. *Mol Psychiatry*, 24 (3) : 409–420.
- 5) Ikeda M, Saito T, Kanazawa T, et al (2021) Polygenic risk score as clinical utility in psychiatry : a clinical viewpoint. *J Hum Genet*, 66 (1) : 53–60.

### 認知社会機能

#### 42. 社会認知機能

- 1) Fett AK, Viechtbauer W, Dominguez M, et al (2010) The relationship between neurocognition and social cognition with functional outcomes in schizophrenia : A meta-analysis. *Neurosci Biobehav Rev*, 35 (3) : 573–588.
- 2) Pinkham AE, Harvey PD and Penn DL (2018) Social Cognition Psychometric Evaluation : Results of the Final Validation Study. *Schizophr Bull*, 44 (4) : 737–748.
- 3) 池淵恵美, 中込和幸, 池澤聰, 他 (2012) 統合失調症の社会的認知 : 脳科学と心理社会的介入の架橋を目指して. *精神神経学雑誌*, 114 (5) : 489–507.
- 4) Kanie A, Kikuchi A, Haga D, et al (2019) The feasibility and efficacy of social cognition and interaction training for outpatients with schizophrenia in Japan : A multicenter randomized clinical trial. *Front Psychiatry*, 10 : 589.

#### 43. メタ認知

- 1) Moritz S and Lysaker PH (2018) Metacognition—What did James H.

- Flavell really say and the implications for the conceptualization and design of metacognitive interventions. *Schizophr Res*, 201 : 20–26.
- 2) Flavell JH (1979) Metacognition and cognitive monitoring : A new area of cognitive–developmental inquiry. *Am Psychol*, 34 (10) : 906–911.
  - 3) Wells A (2011) Metacognitive therapy for anxiety and depression. Guilford Press, New York.(熊野宏昭・今井正司・境泉洋監訳 [2012] メタ認知療法 : うつと不安の新しいケースフォーミュレーション. 日本評論社, 東京.)
  - 4) Moritz S and Woodward TS(2007)Metacognitive training in schizophrenia : from basic research to knowledge translation and intervention. *Curr Opin Psychiatry*, 20 (6) : 619–625.
  - 5) 石垣琢磨編 (2022) メタ認知トレーニングをはじめよう！—MCTガイドブック. 星和書店, 東京.
  - 6) Lysaker PH and Klion R (2017) Recovery, meaning–making, and severe mental illness : A comprehensive guide to metacognitive reflection and insight therapy. Routledge, London.
- #### 44. Functional capacity
- 1) 住吉太幹 (2015) 精神疾患における認知機能障害—機能的転帰との関連—. *精神科治療学*, 30 (11) : 1411–1418.
  - 2) Bowie CR, Reichenberg A, Patterson TL, et al (2006) Determinants of real–world functional performance in schizophrenia subjects : correlations with cognition, functional capacity, and symptoms. *Am J Psychiatry*, 163 (3) : 418–425.
  - 3) Leifker FR, Patterson TL, Heaton RK, et al (2011) Validating measures of real–world outcome : the results of the VALERO expert survey and RAND panel. *Schizophr Bull*, 37 (2) : 334–343.
  - 4) 住吉チカ(2014)統合失調症と注意機能. *精神科*, 24(2) : 161–167.
  - 5) Leifker FR, Patterson TL, Bowie CR, et al(2010)Psychometric properties of performance–based measurements of functional capacity : test–retest reliability, practice effects, and potential sensitivity to change. *Schizophr Res*, 119 (1–3) : 246–252.
  - 6) Harvey PD, Green MF and Nuechterlein KH (2010) Latest developments in the matrices process. *Psychiatry*, 7 (6) : 49–52.
  - 7) Green MF, Schooler NR, Kern RS, et al (2011) Evaluation of functionally meaningful measures for clinical trials of cognition enhancement in schizophrenia. *Am J Psychiatry*, 168 (4) : 400–407.
  - 8) Mausbach BT, Harvey PD, Goldman SR, et al (2007) Development of a brief scale of everyday functioning in persons with serious mental illness. *Schizophr Bull*, 33 (6) : 1364–1372.

- 9) Sumiyoshi C, Takaki M, Okahisa Y, et al (2014) Utility of the UCSD performance-based skills assessment-brief Japanese version : discriminative ability and relation to neurocognition. *Schizophr Res Cogn*, 1 (3) : 137-143.
  - 10) Green MF (1996) What are the functional consequences of neurocognitive deficits in schizophrenia? *Am J Psychiatry*, 153 (3) : 321-330.
  - 11) Green MF, Kern RS and Heaton RK (2004) Longitudinal studies of cognition and functional outcome in schizophrenia : implications for MATRICS. *Schizophr Res*, 72 (1) : 41-51.
  - 12) Sumiyoshi C, Harvey PD, Takaki M, et al (2015) Factors predicting work outcome in patients with schizophrenia. *Schizophr Res*, 2(3) : 105-112.
  - 13) 住吉チカ(2011)統合失調患者における機能的転帰：MATRICS Consensus Cognitive Battery との関連. *日本神経精神薬理学雑誌*, 31 (5) : 251-257.
  - 14) Harvey PD and Strassnig M (2012) Predicting the severity of everyday functional disability in people with schizophrenia : cognitive deficits, functional capacity, symptoms, and health status. *World Psychiatry*, 11 (2) : 73-79.
  - 15) Harvey PD and Velligan DI (2011) International assessment of functional skills in people with schizophrenia. *Innov Clin Neurosci*, 8 (1) : 15-18.
  - 16) 住吉チカ (2017) 診断・検査 認知機能検査の方法と評価：UCSD 日常生活技能簡易評価尺度 (UPSA-B). *精神科臨床 Legato*, 3 (4) : 26-29.
- 45. Performance based assessment**
- 1) Green MF, Kern RS, Braff DL, et al (2000) Neurocognitive deficits and functional outcome in schizophrenia : Are we measuring the "right stuff" ? *Schizophr Bull*, 26 (1) : 119-136.
  - 2) 兼田康宏, 住吉太幹, 中込和幸 (2008) 統合失調症認知機能簡易評価尺度日本語版 (BACS-J). *精神医学*, 50 (9) : 913-917.
  - 3) Mausbach BT, Harvey PD, Goldman SR, et al (2007) Development of a brief scale of everyday functioning in persons with serious mental illness. *Schizophr Bull*, 33 (6) : 1364-1372.
  - 4) Green MF, Horan WP, Barch DM, et al (2015) Effort-based decision making : A novel approach for assessing motivation in schizophrenia. *Schizophr Bull*, 41 (5) : 1035-1044.
- 46. 精神科リハビリテーション**
- 1) Phillips SD, Burns BJ, Edgar ER, et al (2001) Moving assertive community treatment into standard practice. *Psychiatr Serv*, 52 (6) :

771-779.

- 2) Dixon L, Mcfarlane WR, Lefley H, et al (2001) Evidence-based practices for services to families of people with psychiatric disabilities. *Psychiatr Serv*, 52 (7) : 903-910.
- 3) Bond GR, Becker DR, Drake RE, et al (2001) Implementing supported employment as an evidence-based practice. *Psychiatr Serv*, 52 (3) : 313-322.
- 4) Oshima I, Sono T, Bond GR, et al (2014) A randomized controlled trial of individual placement and support in Japan. *Psychiatr Rehabil J*, 37 (2) : 137-143.
- 5) Frederick DE and VanderWeele TJ (2019) Supported employment : Meta-analysis and review of randomized controlled trials of individual placement and support. *PLoS ONE*, 14 (2) : e0212208.

#### 47. レジリエンス

- 1) 八木剛平, 鈴木健文, 内田裕之 (2015) 精神科薬物療法における“Natural Resilience Theory”の提唱. *精神神経学雑誌*, 117 (1) : 10-17.
- 2) Hughes V (2012) Stress : the roots of resilience. *Nature*, 490 : 165-167.
- 3) Southwick SM and Charney DS (2012) The science of resilience : implications for the prevention and treatment of depression. *Science*, 338 (6103) : 79-82.

### 治療

#### 48. 認知機能改善療法

- 1) Wykes T and Reeder C (2005) *Cognitive Remediation Therapy for Schizophrenia : Theory & Practice*. Routledge, NY. (松井三枝 監訳 [2011] 統合失調症の認知機能改善療法. 金剛出版, 東京)
- 2) Wykes T, Huddy V, Cellard C, et al (2011) A meta-analysis of cognitive remediation for schizophrenia : methodology and effect sizes. *Am J Psychiatry*, 168 (5) : 472-485.
- 3) McGurk SR, Twamley EW, Sitzer DI, et al (2007) A meta-analysis of cognitive remediation in schizophrenia. *Am J Psychiatry*, 164(12) : 1791-1802.
- 4) Bowie CR, Bell MD, Fiszdon JM, et al (2020) Cognitive remediation for schizophrenia : An expert working group white paper on core techniques. *Schizophr Res*, 215 : 49-53.
- 5) Delahunty A, Morice R 著, 松井三枝, 柴田多美子, 少作隆子訳 (2015) 前頭葉・実行機能プログラム (FEP) —認知機能改善のためのトレーニング実践マニュアル—. 新興医学出版社, 東京.

#### 49. 非侵襲的脳刺激による認知機能改善

- 1) 住吉太幹 (2013) 統合失調症における認知機能障害. *臨床精神医*

- 学, 42 (12) : 1461-1467.
- 2) 中村元昭 (2012) 精神科医療におけるニューロモデュレーションの歴史と現在, そして未来. 日本生物学的精神医学会誌, 23 (2) : 121-129.
  - 3) Yamada Y and Sumiyoshi T (2021) Neurobiological mechanisms of transcranial direct current stimulation for psychiatric disorders ; Neurophysiological, chemical, and anatomical considerations. *Front Hum Neurosci*, 15 : 631838.
  - 4) Jiang Y, Guo Z, Xing G, et al (2019) Effects of high-frequency transcranial magnetic stimulation for cognitive deficit in schizophrenia : A meta-analysis. *Front Psychiatry*, 10 : 135.
  - 5) Narita Z, Stickley A, DeVylder J, et al (2020) Effect of multi-session prefrontal transcranial direct current stimulation on cognition in schizophrenia : A systematic review and meta-analysis. *Schizophr Res*, 216 : 367-373.
- 50. ニューロモデュレーション**
- 1) Barker AT (1991) An introduction to the basic principles of magnetic nerve stimulation. *J Clin Neurophysiol*, 8 (1) : 26-37.
  - 2) Deng ZD, Lisanby SH and Peterchev AV (2013) Electric field depth-focality tradeoff in transcranial magnetic stimulation : simulation comparison of 50 coil designs. *Brain Stimul*, 6 (1) : 1-13.
  - 3) Cash RFH, Weigand A, Zalesky A, et al (2021) Using brain imaging to improve spatial targeting of transcranial magnetic stimulation for depression. *Biol Psychiatry*, 90 (10) : 689-700.
  - 4) Noda Y (2020) Toward the establishment of neurophysiological indicators for neuropsychiatric disorders using transcranial magnetic stimulation-evoked potentials : A systematic review. *Psychiatry Clin Neurosci*, 74 (1) : 12-34.
  - 5) Noda Y, Silverstein WK, Barr MS, et al (2015) Neurobiological mechanisms of repetitive transcranial magnetic stimulation of the dorso-lateral prefrontal cortex in depression : a systematic review. *Psychol Med*, 45 (16) : 3411-3432.
  - 6) Blumberger DM, Vila-Rodriguez F, Thorpe KE, et al (2018) Effectiveness of theta burst versus high-frequency repetitive transcranial magnetic stimulation in patients with depression (THREE-D) : a randomised non-inferiority trial. *Lancet*, 391 (10131) : 1683-1692.
  - 7) Rosson S, de Filippis R, Croatto G, et al (2022) Brain stimulation and other biological non-pharmacological interventions in mental disorders: An umbrella review. *Neurosci Biobehav Rev*, 139 : 104743.
  - 8) Antal A, Luber B, Brem A, et al (2022) Non-invasive brain stimulation and neuroenhancement. *Clin Neurophysiol Pract*, 7 : 146-165.



- 9) Grover S, Wen W, Viswanathan V, et al (2022) Long-lasting, dissociable improvements in working memory and long-term memory in older adults with repetitive neuromodulation. *Nat Neurosci*, 25 : 1237-1246.

## 51. 精神療法

- 1) Royal College of Psychiatry (2020) Psychotherapies and psychological treatments. <https://www.rcpsych.ac.uk/mental-health/treatments-and-wellbeing/psychotherapies>. アクセス 2020.12.13.
- 2) American Psychological Association (2016) Psychological Treatments. <https://div12.org/treatments/>. アクセス 2020.12.13.
- 3) Frost ND, Baskin TW and Wampold BE (2020) Comparative clinical trials in psychotherapy : Have large effects been replicated? *Epidemiol Psychiatr Sci*, 29 : e128.
- 4) Valenstein-Mah H, Greer N, McKenzie L, et al (2020) Effectiveness of training methods for delivery of evidence-based psychotherapies : a systematic review. *Implement Sci*, 15 (1) : 40.

## 52. 就労支援

- 1) 山口創生, 松長麻美, 堀尾奈都記 (2016) 重度精神疾患におけるパーソナル・リカバリーに関連する長期アウトカムとは何か? *精神保健研究*, 62 : 15-20.
- 2) Anthony WA (1993) Recovery from mental illness : The guiding vision of the mental health service system in the 1990s. *Psychosoc Rehabil J*, 16 (4) : 11-23.
- 3) 相澤欽一 (2007) 現場で使える精神障害者雇用支援ハンドブック. 金剛出版, 東京.
- 4) Becker DR and Drake RE (2003) A working life for people with severe mental illness. Oxford University press, Oxford. (大島巖, 松為信雄, 伊藤順一郎監訳 [2004] 精神障害をもつ人たちのワーキングライフ. 金剛出版, 東京)
- 5) スワンソン S, ベッカー DR 著, 林輝男訳 (2017) IPS 就労支援プログラム導入ガイド. 星和書店, 東京, pp3-4.
- 6) Kinoshita Y, Furukawa TA, Kinoshita K, et al (2013) Supported employment for adults with severe mental illness. *Cochrane Database Syst Rev*, 2013 (9) : CD008297.
- 7) 大島巖, 梅原芳江, 久米和代, 他 (2000) 公設地域活動支援センターにおける IPS 援助付き雇用 (個別職業紹介とサポートプログラム) 導入とその評価 (2). 西尾雅明 (研究代表者): 平成 19 年度厚生労働科学研究補助金 精神障害者の一般就労と職場適応を支援するためのモデルプログラム開発に関する研究 分担研究報告書. 厚生労働科学研究費補助金 労働安全衛生総合研究事業.

- 8) Wykes T, Huddy V, Cellard C, et al (2011) A meta-analysis of cognitive remediation for schizophrenia : methodology and effect sizes. *Am J Psychiatry*, 168 (5) : 472-485.
- 9) Chan JY C, Hirai HW and Tsoi KK F (2015) Can computer-assisted cognitive remediation improve employment and productivity outcomes of patients with severe mental illness? A meta-analysis of prospective controlled trials. *J Psychiatr Res*, 68 : 293-300.
- 10) Ikebuchi E, Sato S, Yamaguchi S, et al (2017) Does improvement of cognitive functioning by cognitive remediation therapy effect work outcomes in severe mental illness? A secondary analysis of a randomized controlled trial. *Psychiatry Clin Neurosci*, 71 (5) : 301-308.

### 53. 認知行動療法

- 1) Wiles N, Thomas L, Abel A, et al (2013) Cognitive behavioural therapy as an adjunct to pharmacotherapy for primary care based patients with treatment resistant depression : results of the CoBaIT randomised controlled trial. *Lancet*, 381 (9864) : 375.
- 2) Nakagawa A, Mitsuda D, Sado M, et al (2017) Effectiveness of supplementary cognitive-behavioral therapy for pharmacotherapy-resistant depression : A randomized controlled trial. *J Clin Psychiatry*, 78 (8) : 1126.
- 3) Shafran R, Myles-Hooton P, Bennett S, et al (2021) The concept and definition of low intensity cognitive behaviour therapy. *Behav Res Ther*, 138 : 103803.
- 4) Mantani A, Kato T, Furukawa TA, et al (2017) Smartphone cognitive behavioral therapy as an adjunct to pharmacotherapy for refractory depression : Randomized controlled Trial. *J Med Internet Res*, 19 (11) : e373.
- 5) Nakao S, Nakagawa A, Oguchi Y, et al (2018) Web-based cognitive behavioral therapy blended with face-to-face sessions for major depression : Randomized controlled trial. *J Med Internet Res*, 20 (9) : e10743.

## 脳画像

### 54. Voxel-based morphometry (VBM)

- 1) Ashburner J and Friston KJ (2000) Voxel-based morphometry—the methods. *Neuroimage*, 11 (6 Pt1) : 805-821.
- 2) Ashburner J (2007) A fast diffeomorphic image registration algorithm. *Neuroimage*, 38 (1) : 95-113.
- 3) Matsuda H, Mizumura S, Nemoto K, et al (2012) Automatic voxel-based morphometry of structural MRI by SPM8 plus diffeomorphic anatomic registration through exponentiated lie algebra improves

the diagnosis of probable Alzheimer Disease. *AJNR Am J Neuroradiol*, 33 (6) : 1109–1114.

## 55. 皮質厚解析

- 1) Fischl B and Dale AM(2000) Measuring the thickness of the human cerebral cortex from magnetic resonance images. *Proc Natl Acad Sci U S A*, 97 (20) : 11050–11055.
- 2) Fischl B (2012) *FreeSurfer*. *Neuroimage*, 62 (2) : 774–781.
- 3) Dahnke R, Yotter RA and Gaser C(2013) Cortical thickness and central surface estimation. *Neuroimage*, 65 : 336–348.
- 4) Seiger R, Ganger S, Kranz GS, et al(2018) Cortical thickness estimations of *FreeSurfer* and the CAT12 toolbox in patients with Alzheimer's disease and healthy controls. *J Neuroimaging*, 28 (5) : 515–523.

## 56. コネクトーム

- 1) Sporns O, Tononi G and Kötter R (2005) The human connectome : A structural description of the human brain. *PLoS Comput Biol*, 1 (4) : 0245–0251.
- 2) Hagmann P(2005)From diffusion MRI to brain connectomics. EPFL Theses. doi : 10.5075/epfl-thesis-3230.
- 3) Farahani FV, Karwowski W and Lighthall NR (2019) Application of graph theory for identifying connectivity patterns in human brain networks : A systematic review. *Front Neurosci*, 13 : 585.
- 4) Sha Z, Xia M, Lin Q, et al(2018) Meta-connectomic analysis reveals commonly disrupted functional architectures in network modules and connectors across brain disorders. *Cereb Cortex*, 28 (12) : 4179–4194.
- 5) Fornito A, Zalesky A and Bullmore E (2016) *Fundamentals of Brain Network Analysis* 1st Ed. Elsevier Inc, Amsterdam.

## 57. Fractional anisotropy (FA)

- 1) Smith SM, Jenkinson M, Johansen-Berg H, et al (2006) Tract-based spatial statistics : voxelwise analysis of multi-subject diffusion data. *Neuroimage*, 31 (4) : 1487–1505.
- 2) Kelly S, Jahanshad N, Zalesky A, et al(2018)Widespread white matter microstructural differences in schizophrenia across 4322 individuals : results from the ENIGMA Schizophrenia DTI Working Group. *Mol Psychiatry*, 23 (5) : 1261–1269.
- 3) Wise T, Radua J, Nortje G, et al (2016) Voxel-based meta-analytical evidence of structural Disconnectivity in major depression and Bipolar Disorder. *Biol Psychiatry*, 79 (4) : 293–302.
- 4) 青木茂樹, 阿部修, 増谷佳孝, 他 (2013) これでわかる拡散MRI 第3版. 学研メディカル秀潤社, 東京.

## 58. Harmonization

- 1) Yamashita A, Yahata N, Itahashi T, et al (2019) Harmonization of resting-state functional MRI data across multiple imaging sites via the separation of site differences into sampling bias and measurement bias. *PLoS Biol*, 17 (4) : e3000042.
- 2) Koike S, Tanaka SC, Okada T, et al (2021) Brain/MINDS beyond human brain MRI project : A protocol for multi-level harmonization across brain disorders throughout the lifespan. *Neuroimage Clin*, 30 : 102600.

## 60. 安静時脳機能 MRI

- 1) Smith SM, Fox PT, Miller KL, et al (2009) Correspondence of the brain's functional architecture during activation and rest. *Proc Natl Acad Sci U S A*, 106 (31) : 13040-13045.
- 2) Thomas Yeo BT, Krienen FM, Sepulcre J, et al (2011) The organization of the human cerebral cortex estimated by intrinsic functional connectivity. *J Neurophysiol*, 106 (3) : 1125-1165.
- 3) Sha Z, Xia M, Lin Q, et al (2018) Meta-connectomic analysis reveals commonly disrupted functional architectures in network modules and connectors across brain disorders. *Cereb Cortex*, 28 (12) : 4179-4194.
- 4) Parkes L, Satterthwaite TD and Bassett DS (2020) Towards precise resting-state fMRI biomarkers in psychiatry : synthesizing developments in transdiagnostic research, dimensional models of psychopathology, and normative neurodevelopment. *Curr Opin Neurobiol*, 65 : 120-128.
- 5) Bijsterbosch J, Smith SM and Beckmann CF (2017) Introduction to resting state fMRI functional connectivity. *Oxford Neuroimaging Primers*. Oxford University Press, Oxford.

## 62. アミロイド/タウ PET

- 1) Klunk WE, Engler H, Nordberg A, et al (2004) Imaging brain amyloid in Alzheimer's disease with Pittsburgh Compound-B. *Ann Neurol*, 55 (3) : 306-319.
- 2) Villemagne VL, Dore V, Burnham SC, et al (2018) Imaging tau and amyloid-beta proteinopathies in Alzheimer disease and other conditions. *Nat Rev Neurol*, 14 (4) : 225-236.
- 3) Tagai K, Ono M, Kubota M, et al (2021) High-contrast in vivo imaging of tau pathologies in Alzheimer's and non-Alzheimer's disease tauopathies. *Neuron*, 6 : 109 (1) 42-58. e8.
- 4) Rabinovici GD, Gatsonis C, Apgar C, et al (2019) Association of amyloid positron emission tomography with subsequent change in clinical management among medicare beneficiaries with mild cognitive

impairment or dementia. JAMA, 321 (13) : 1286-1294.

### 63. MRS

- 1) 今西好正, 森 寿一, 作野勝臣, 他 (2013) 改訂増補版 心から納得・理解できる MRI 原理と MRS. 医療科学社, 東京.
- 2) 津川幸子, 中島振一郎 (2017)  $^1\text{H}$ -MRS を用いた統合失調症のグルタミン酸仮説の検証. BRAIN and NERVE, 69 (9) : 1035-1040.
- 3) 原田雅史 (2010) 3T MRI による MR スペクトロスコピー. INNERVISION, 25 (9) : 56-59.
- 4) Witenburg SA, Yang S, Fischer BA, et al (2015) In vivo assessment of neurotransmitters and modulators with magnetic resonance spectroscopy : Application to schizophrenia. Neurosci Biobehav Rev, 51 : 276-295.
- 5) 高堂裕平 (2020) MRS を臨床で用いるには. 臨床画像, 36 (5) : 534-541.
- 6) Tarumi R, Tsugawa S, Noda Y, et al (2020) Levels of glutamatergic neurometabolites in patients with severe treatment-resistant schizophrenia : a proton magnetic resonance spectroscopy study. Neuropsychopharmacology, 45 (4) : 632-640.
- 7) 磯辺智範, 山本哲哉, 阿久津博義, 他 (2016) MRS の基礎から臨床まで. 医学物理, 36 (2) : 85-91.

## 神経生理

### 64. 脳波・脳磁図

- 1) 加藤元博, 飛松省三 (2019) 脳波の発生機序 : 解剖と生理. モノグラフ臨床脳波を基礎から学ぶ人のために第 2 版 (日本臨床神経生理学会編). 診断と治療社, 東京, pp2-9.
- 2) 日本臨床神経生理学会 脳磁図ガイドライン作成委員会 (2005) 臨床脳磁図検査解析指針. 臨床神経生理学, 33 (2) : 69-86.
- 3) 小林哲生 (2015) 超高感度な光学的磁気センサを用いた新たなニューロイメージングへ向けて. VISION, 27 (2) : 73-79.

### 65. 誘発電位・事象関連電位

- 1) Rosburg T, Boutros NN and Ford JM (2008) Reduced auditory evoked potential component N100 in schizophrenia—a critical review. Psychiatry Res, 161 (3) : 259-274.
- 2) Jeon YW and Polich J (2003) Meta-analysis of P300 and schizophrenia : patients, paradigms, and practical implications. Psychophysiology, 40 (5) : 684-701.
- 3) Javitt DC, Spencer KM, Thaker GK, et al (2008) Neurophysiological biomarkers for drug development in schizophrenia. Nat Rev Drug Discov, 7 (1) : 68-83.
- 4) Hamilton HK, Boos AK and Mathalon DH (2020) Electroencephalography and Event-Related Potential Biomarkers in Individuals at

- Clinical High Risk for Psychosis. *Biol Psychiatry*, 88 (4) : 294-303.
66. 周波数/時間周波数解析
- 1) Al-Qazzaz NK, Hamid Bin Mohd Ali S, Ahmad SA, et al (2015) Selection of mother wavelet functions for multi-channel EEG signal analysis during a working memory task. *Sensors*, 15 (11) : 29015-29035.
  - 2) Nolte G, Ziehe A, Nikulin VV, et al (2008) Robustly estimating the flow direction of information in complex physical systems. *Phys Rev Lett*, 100 (23) : 234101.
67. ニューラルオシレーション
- 1) ジェルジ・ブザーキ著, 渡辺喬光監訳, 谷垣暁美訳 (2019) 脳のリズム, みすず書房, 東京.
  - 2) Gray CM and Singer W (1989) Stimulus-specific neuronal oscillations in orientation columns of cat visual cortex. *Proc Natl Acad Sci USA*, 86 (5) : 1698-1702.
  - 3) Hirano Y and Uhlhaas PJ (2021) Current findings and perspectives on aberrant neural oscillations in schizophrenia. *Psychiatry Clin Neurosci*, 75 (12) : 358-368.
  - 4) Kwon JS, O'Donnell BF, Wallenstein GV, et al (1999) Gamma frequency-range abnormalities to auditory stimulation in schizophrenia. *Arch Gen Psychiatry*, 56 (11) : 1001-1005.
  - 5) Spencer KM, Salisbury DF, Shenton ME, et al (2008) Gamma-band auditory steady-state responses are impaired in first episode psychosis. *Biol Psychiatry*, 64 (5) : 369-375.
  - 6) Hirano Y, Oribe N, Kanba S, et al (2015) Spontaneous gamma activity in schizophrenia. *JAMA Psychiatry*, 72 (8) : 813-821.
  - 7) Javitt DC, Siegel SJ, Spencer KM, et al (2020) A roadmap for development of neuro-oscillations as translational biomarkers for treatment development in neuropsychopharmacology. *Neuropsychopharmacology*, 45 (9) : 1411-1422.
68. 脳のネットワーク
- 1) Mazoyer B, Zago L, Mellet E, et al (2001) Cortical networks for working memory and executive functions sustain the conscious resting state in man. *Brain Res Bull*, 54 (3) : 287-298.
  - 2) Zhou HX, Chen X, Shen YQ, et al (2020) Rumination and the default mode network : Meta-analysis of brain imaging studies and implications for depression. *Neuroimage*, 206 : 116287.
  - 3) Roiser JP, Wigton R, Kilner JM, et al (2013) Dysconnectivity in the frontoparietal attention network in schizophrenia. *Front Psychiatry*, 4 : 176.
  - 4) Menon V (2015) Salience network. In *Brain Mapping : An Encyclo-*

pedic Reference (ed. Toga AW), 2 : 597–611.

## 69. Predictive Coding/Prediction Error

- 1) Garrido MI, Kilner JM, Stephan KE, et al (2009) The mismatch negativity : a review of underlying mechanisms. *Clin Neurophysiol*, 120 (3) : 453–463.
- 2) Koshiyama D, Kirihara K, Tada M, et al (2020) Reduced Auditory Mismatch Negativity Reflects Impaired Deviance Detection in Schizophrenia. *Schizophr Bull*, 46 (4) : 937–946.
- 3) Phillips HN, Blenkmann A, Hughes LE, et al (2015) Hierarchical organization of frontotemporal networks for the prediction of stimuli across multiple dimensions. *J Neurosci*, 35 (25) : 9255–9264.
- 4) Koshiyama D, Miyakoshi M, Joshi YB, et al (2020) Abnormal effective connectivity underlying auditory mismatch negativity impairments in schizophrenia. *Biol Psychiatry Cogn Neurosci Neuroimaging*, 5 (11) : 1028–1039.
- 5) Kirihara K, Tada M, Koshiyama D, et al (2020) A predictive coding perspective on mismatch negativity impairment in schizophrenia. *Front Psychiatry*, 11 : 660.

## 70. ニューロフィードバック

- 1) Gruzelier JH (2014) EEG–neurofeedback for optimising performance. I : a review of cognitive and affective outcome in healthy participants. *Neurosci Biobehav Rev*, 44 : 124–141.
- 2) Stoeckel LE, Garrison KA, Ghosh S, et al (2014) Optimizing real time fMRI neurofeedback for therapeutic discovery and development. *Neuroimage Clin*, 5 : 245–255.
- 3) Schabus M, Griessenberger H, Gnjezda MT, et al (2017) Better than sham? A double–blind placebo–controlled neurofeedback study in primary insomnia. *Brain*, 140 (4) : 1041–1052.
- 4) Thibault RT, Lifshitz M and Raz A (2017) Neurofeedback or neuroplacebo? *Brain*, 140 (4) : 862–864.
- 5) Sorger B, Scharnowski F, Linden DEJ, et al (2018) Control freaks : Towards optimal selection of control conditions for fMRI neurofeedback studies. *Neuroimage*, 186 : 256–265.

## 71. 眼球運動

- 1) Krauzlis RJ (2004) Recasting the smooth pursuit eye movement system. *J Neurophysiol*, 91 (2) : 591–603.
- 2) Kojima T, Matsushima E, Ohta K, et al (2001) Stability of exploratory eye movements as a marker of schizophrenia—a WHO multi–center study. *World Health Organization. Schizophr Res*, 52(3) : 203–213.
- 3) Morita K, Miura K, Fujimoto M, et al (2019) Eye movement abnormalities and their association with cognitive impairments in schizo-

- phrenia. *Schizophr Res*, 209 : 255–562.
- 4) Reilly JL, Lencer R, Bishop JR, et al (2008) Pharmacological treatment effects on eye movement control. *Brain Cogn*, 68 (3) : 415–435.
72. マルチモーダル脳計測
- 1) Tulay EE, Metin B, Tarhan N, et al (2019). Multimodal neuroimaging : basic concepts and classification of neuropsychiatric diseases. *Clin EEG Neurosci*, 50 (1) : 20–33.
  - 2) Calhoun VD and Sui J (2016). Multimodal fusion of brain imaging data : A key to finding the missing link (s) in complex mental illness. *Biol Psychiatry Cogn Neurosci Neuroimaging*, 1 (3) : 230–244.
  - 3) Hall DA, Haggard MP, Akeroyd MA, et al (1999) “Sparse” temporal sampling in auditory fMRI. *Hum Brain Mapp*, 7 (3) : 213–223.
  - 4) Huster RJ, Debener S, Eichele T, et al (2012) Methods for simultaneous EEG–fMRI : an introductory review. *J Neurosci*, 32 (18) : 6053–6060.

## 臨床試験

### 74. 臨床試験の目的：探索的試験と検証的試験

- 1) Watanabe T, Kuroda M, Kuwabara H, et al (2015) Clinical and neural effects of six-week administration of oxytocin on core symptoms of autism. *Brain*, 138 (Pt 11) : 3400–3412.
- 2) Yamasue H, Okada T, Munosue T, et al (2020) Effect of intranasal oxytocin on the core social symptoms of autism spectrum disorder : a randomized clinical trial. *Mol Psychiatry*, 25 (8) : 1849–1858.
- 3) Green J, Charman T, McConachie H, et al (2010) Parent-mediated communication-focused treatment in children with autism (PACT) : a randomised controlled trial. *Lancet*, 375 (9732) : 2152–2160.

### 75. 精神神経疾患を対象とした臨床試験の特徴

- 1) Laughren TP (2001) The scientific and ethical basis for placebo-controlled trials in depression and schizophrenia : an FDA perspective. *Eur Psychiatry*, 16 (7) : 418–423.
- 2) 厚生労働省医薬局審査管理課長 (2001) 「臨床試験における対照群の選択とその関連する諸問題」について。医薬審発第 136 号, 平成 13 年 2 月 27 日。
- 3) 中林哲夫 (2020) 臨床試験のデータを読み解く—精神科における最適な治療をめざして。星和書店, 東京。

### 76. 医薬品の安全性評価

- 1) 医薬品医療機器総合機構：医療用医薬品情報検索。  
<https://www.pmda.go.jp/PmdaSearch/iyakuSearch/>。アクセス



2021.3.21.

- 2) くすりの適正使用協議会（監修），藤田利治（編集），松下泰之，神田誠一（編集協力）（2008）実例で学ぶ薬剤疫学の第一歩．リーダー出版センター，東京．
- 3) 医薬品医療機器総合機構：市販直後調査に関する情報．  
<http://www.pmda.go.jp/review-services/drug-reviews/review-information/p-drugs/0006.html>．アクセス 2021.3.21.
- 4) 医薬品医療機器総合機構：副作用が疑われる症例報告に関する情報．  
<https://www.pmda.go.jp/safety/info-services/drugs/adr-info/suspected-adr/0005.html>．アクセス 2021.3.21.
- 5) 藤田利治（2009）副作用評価におけるシグナル検出．薬剤疫学，14（1）：27-36.

## 77. ICH ガイドラインと臨床評価方法に関するガイドライン

- 1) 医薬品医療機器総合機構：ICH 医薬品規制調和国際会議．  
<http://www.pmda.go.jp/int-activities/int-harmony/ich/0014.html>．  
アクセス 2021.4.6.
- 2) 厚生労働省医薬食品局審査管理課長（2010）「抗うつ薬の臨床評価方法に関するガイドライン」について．薬食審査発 1116 第 1 号．平成 22 年 11 月 16 日．
- 3) 厚生労働省医薬食品局審査管理課長（2011）「睡眠薬の臨床評価方法に関するガイドライン」について．薬食審査発 1213 第 1 号．平成 23 年 12 月 13 日．
- 4) 厚生労働省医薬・生活衛生局医薬品審査管理課長（2020）神経障害性疼痛治療薬の臨床評価に関するガイドラインについて．薬生薬審発 1228 第 1 号．令和 2 年 12 月 28 日．
- 5) 中林哲夫（2020）臨床試験のデータを読み解く－精神科における最適な治療をめざして．星和書店，東京．

## 78. 臨床研究と治験

- 1) 慶應義塾大学病院臨床研究推進センターホームページ：臨床研究とは．  
<https://www.ctr.hosp.keio.ac.jp/patients/about/clinical.html>．  
アクセス 2021.4.30
- 2) 安田英人，中川敦夫（2019）特定臨床研究とは？ 精神科，35（5）：416-422.
- 3) 厚生労働省：臨床研究法について．  
<https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000163417.html>．アクセス 2021.4.30.

## 79. 臨床試験における検証の要件

- 1) U. S. Department of Health and Human Services, Food and Drug Administration, Center for Drug Evaluation and Research (CDER) and Center for Biologics Evaluation and Research (CBER) (1998) Guidance for industry : Providing clinical evidence of effectiveness for human drug and biological products. FDA.

- 2) 厚生省医薬安全局審査管理課長 (1998) 臨床試験の一般指針について。医薬審第 380 号。平成 10 年 4 月 21 日。
- 3) 厚生省医薬安全局審査管理課長 (1998) 「臨床試験のための統計的原則」について。医薬審第 1047 号。平成 10 年 11 月 30 日。
- 4) 中林哲夫 (2020) 臨床試験のデータを読み解く—精神科における最適な治療をめざして。星和書店, 東京 p27, 表 5。
- 5) Cohen J (1988) Statistical power analysis for the behavioural sciences, second edition. Lawrence Erlbaum, Mahwah, NJ.

## 基礎研究

### 80. モデル動物

- 1) 疋田貴俊, 友田利文 (2012) 精神疾患モデル動物の作製と治療法スクリーニング。実験医学, 30 (増): 2074–2079。
- 2) Hikida T, Jaaro–Peled H, Seshadri S, et al (2007) Dominant–negative DISC1 transgenic mice display schizophrenia–associated phenotypes detected by measures translatable to humans. Proc Natl Acad Sci USA, 104 (36): 14501–14506。
- 3) Niwa M, Jaaro–Peled H, Tankou S, et al (2013) Adolescent stress–induced epigenetic control of dopaminergic neurons via glucocorticoids. Science, 339 (6117): 335–339。
- 4) Toritsuka M, Kimoto S, Muraki K, et al (2013) Deficits in microRNA–mediated Cxcr4/Cxcl12 signaling in neurodevelopmental deficits in a 22q11 deletion syndrome mouse model. Proc Natl Acad Sci USA, 110 (43): 17552–17557。
- 5) Nakatani J, Tamada K, Hatanaka F, et al (2009) Abnormal behavior in a chromosome–engineered mouse model for human 15q11–13 duplication seen in autism. Cell, 137 (7): 1235–1246。

### 81. シングルセル解析

- 1) Lacar B, Linker SB, Jaeger BN, et al (2016) Nuclear RNA–seq of single neurons reveals molecular signatures of activation. Nat Commun, 7: 11022。
- 2) Velmeshev D, Schirmer L, Jung D, et al (2019) Single–cell genomics identifies cell type–specific molecular changes in autism. Science, 364 (6441): 685–689。
- 3) Nagy C, Maitra M, Tanti A, et al (2020) Single–nucleus transcriptomics of the prefrontal cortex in major depressive disorder implicates oligodendrocyte precursor cells and excitatory neurons. Nat Neurosci, 23 (6): 771–781。
- 4) Sawada T, Chater TE, Sasagawa Y, et al (2020) Developmental excitation–inhibition imbalance underlying psychoses revealed by single–cell analyses of discordant twins–derived cerebral organoids. Mol Psychiatry, 25 (11): 2695–2711。

5) Lodato MA, Rodin RE, Bohrson CL, et al (2018) Aging and neurodegeneration are associated with increased mutations in single human neurons. *Science*, 359 (6375) : 555–559.

## 82. タンパク質構造解析

1) Westbrook JD, Soskind R, Hudson BP, et al (2020) Impact of the Protein Data Bank on antineoplastic approvals. *Drug Discov Today*, 25 (5) : 837–850.

## 83. ゲノム編集技術

1) 朴秀賢 (2018) ゲノム編集技術が切り開く精神疾患研究の新時代, *精神神経学雑誌*, 120 (9) : 813–819.

2) 相田知海, 田中光一 (2016) CRISPR/Cas でマウスゲノムを自在に操る, *生化学*, 88 (1) : 119–123.

3) Powell SK, Gregory J, Akbarian S, et al (2017) Application of CRISPR/Cas9 to the study of brain development and neuropsychiatric disease. *Mol Cell Neurosci*, 82 : 157–166.

4) Swiech L, Heidenreich M, Banerjee A, et al (2015) In vivo interrogation of gene function in the mammalian brain using CRISPR–Cas9. *Nat Biotechnol*, 33 (1) : 102–106.

5) Wang H, Yang H, Shivalila CS, et al (2013) One-step generation of mice carrying mutations in multiple genes by CRISPR/cas-mediated genome engineering. *Cell*, 153 (4) : 910–918.

## 84. ウイルスベクター

1) 平井宏和, 日置寛之, 小林和人編 (2020) ウイルスベクターによる遺伝子導入実験ガイド. 羊土社, 東京.

## 85. 神経回路制御

1) Roth BL (2016) DREADDs for Neuroscientists. *Neuron*, 89 (4) : 683–694.

2) Tye KM and Deisseroth K (2012) Optogenetic investigation of neural circuits underlying brain disease in animal models. *Nat Rev Neurosci*, 13 (4) : 251–266.

3) Deisseroth K (2015) Optogenetics : 10 years of microbial opsins in neuroscience. *Nat Neurosci*, 18 (9) : 1213–1225.

4) Haery L, Deverman BE, Matho KS, et al (2019) Adeno-associated virus technologies and methods for targeted neuronal manipulation. *Front Neuroanat*, 13 (93) : 1–16.

5) Tsien JZ (2016) Cre-lox neurogenetics : 20 years of versatile applications in brain research and counting..... *Front Genet*, 7 (19) : 1–7.

## 生体試料

### 86. 血液脳関門

1) Wang JS, Taylor R, Ruan Y, et al (2004) Olanzapine penetration into

- brain is greater in transgenic Abcb1a P-glycoprotein-deficient mice than FVB1 (wild-type) animals. *Neuropsychopharmacology*, 29 (3) : 551-557.
- 2) Profaci CP, Munji RN, Pulido RS, et al (2020) The blood-brain barrier in health and disease : Important unanswered questions. *J Exp Med*, 217 (4) : e20190062.
  - 3) Tărlungeanu DC, Deliu E, Dotter CP, et al (2016) Impaired amino acid transport at the blood brain barrier is a cause of autism spectrum disorder. *Cell*, 167 (6) : 1481-1494.e18.
  - 4) Vatine GD, Al-Ahmad A, Barriga BK, et al (2017) Modeling psychomotor retardation using iPSCs from MCT8-deficient patients indicates a prominent role for the blood-brain barrier. *Cell Stem Cell*, 20 (6) : 831-843.e5.
  - 5) Pollak TA, Drndarski S, Stone JM, et al (2018) The blood-brain barrier in psychosis. *Lancet Psychiatry*, 5 (1) : 79-92.
- 87. 神経免疫**
- 1) Paolicelli RC, Bolasco G, Pagani F, et al (2011) Synaptic pruning by microglia is necessary for normal brain development. *Science*, 333 (6048) : 1456-1458.
  - 2) Ohgidani M, Kato TA, Setoyama D, et al (2014) Direct induction of ramified microglia-like cells from human monocytes : Dynamic microglial dysfunction in Nasu-Hakola disease. *Sci Rep*, 4 : 4957.
  - 3) Hablitz LM, Plá V, Giannetto M, et al (2020) Circadian control of brain glymphatic and lymphatic fluid flow. *Nat Commun*, 11 (1) : 4411.
- 88. オミクス解析**
- 1) 松尾雄志 (2006) —ome や (m) ics の意味—語源が分かれば見えてくる? *生物物理化学*, 50 (1) : 9.
  - 2) 大澤毅企画 (2020) マルチオミクスを使って得られた最新知見. *実験医学*, 38 (8) : 1-139.
  - 3) Hasin Y, Seldin M and Lusis A (2017) Multi-omics approaches to disease. *Genome Biol*, 18 (1) : 83.
  - 4) 瀬戸山大樹, 加藤隆弘 (2020) 診断バイオマーカー~うつ病の血液バイオマーカー開発の試み~. *精神科*, 37 (6) : 592-598.
  - 5) Setoyama D, Yoshino A, Takamura M, et al (2021) Personality classification enhances blood metabolome analysis and biotyping for major depressive disorders : two-species investigation. *J Affect Disord*, 279 : 20-30.
- 89. iPS 細胞, オルガノイド**
- 1) Takahashi K and Yamanaka S (2006) Induction of pluripotent stem cells from mouse embryonic and adult fibroblast cultures by defined

- factors. *Cell*, 126 (4) : 663–676.
- 2) Takahashi K, Tanabe K, Ohnuki M, et al (2007) Induction of pluripotent stem cells from adult human fibroblasts by defined factors. *Cell*, 131 (5) : 861–872.
  - 3) Fujimori K, Ishikawa M, Otomo A, et al (2018) Modeling sporadic ALS in iPSC-derived motor neurons identifies a potential therapeutic agent. *Nat Med*, 24 (10) : 1579–1589.
  - 4) Eiraku M, Watanabe K, Matsuo-Takasaki M, et al (2008) Self-organized formation of polarized cortical tissues from ESCs and its active manipulation by extrinsic signals. *Cell Stem Cell*, 3 (5) : 519–532.
  - 5) Lancaster MA, Renner M, Martin CA, et al (2013) Cerebral organoids model human brain development and microcephaly. *Nature*, 501 (7467) : 373–379.
- 90. ブレインバンク**
- 1) 加藤忠史&ブレインバンク委員会 (2011) 脳バンク 精神疾患の謎を解くために. 光文社, 東京.
  - 2) Lewis DA (2002) The human brain revisited : opportunities and challenges in postmortem studies of psychiatric disorders. *Neuropsychopharmacology*, 26 (2) : 143–154.
  - 3) Kahn RS and Keefe RS (2013) Schizophrenia is a cognitive illness : time for a change in focus. *JAMA Psychiatry*, 70 (10) : 1107–1112.
  - 4) Gonzalez-Burgos G, Hashimoto T and Lewis DA (2010) Alterations of cortical GABA neurons and network oscillations in schizophrenia. *Curr Psychiatry Rep*, 12 (4) : 335–344.
  - 5) Kimoto S, Zaki MM, Bazmi HH, et al (2015) Altered Markers of Cortical gamma-Aminobutyric Acid Neuronal Activity in Schizophrenia : Role of the NARP Gene. *JAMA Psychiatry*, 72 (8) : 747–756.
- 91. 腸内細菌叢**
- 1) Dominguez-Bello MG, Costello EK, Contreas M, et al (2010) Delivery mode shapes the acquisition and structure of the initial microbiota across multiple body habitats in newborns. *Proc Natl Acad Sci USA*, 107 (26) : 11971–11975.
  - 2) 光岡知足 (2014) 腸内菌叢研究の歴史. 実験医学増刊 常在細菌叢が操るヒトの健康と疾患 (大野博司, 服部正平編), 32 (5) : 652–657.
  - 3) Tochitani S (2021) Vertical transmission of gut microbiota : Points of action of environmental factors influencing brain development. *Neurosci Res*, 168 : 83–94.
  - 4) Sudo N, Chida Y, Aiba Y, et al (2004) Postnatal microbial colonization programs the hypothalamic-pituitary-adrenal system for stress response in mice. *J Physiol*, 558 (1) : 263–275.

- 5) Rea K, Dina TG and Cryan JF (2020) Gut microbiota : A perspective for psychiatrists. *Neuropsychobiology*, 79 (1) : 50–62.
92. エクソソーム
  - 1) Johnstone RM, Adam M, Hammond JR, et al (1987) Vesicle formation during reticulocyte maturation. Association of plasma membrane activities with released vesicles (exosomes). *J Biol Chem*, 262 (19) : 9412–9420.
  - 2) Théry C, Witwer KW, Aikawa E, et al (2018) Minimal information for studies of extracellular vesicles 2018 (MISEV2018) : a position statement of the International Society for Extracellular Vesicles and update of the MISEV2014 guidelines. *J Extracell Vesicles*, 7 (1) : 1535750.
  - 3) Asai H, Ikezu S, Tsunoda S, et al (2015) Depletion of microglia and inhibition of exosome synthesis halt tau propagation. *Nat Neurosci*, 18 (11) : 1584–1593.
  - 4) Yuyama K, Sun H, Mitsutake S, et al (2012) Sphingolipid-modulated exosome secretion promotes clearance of amyloid- $\beta$  by microglia. *J Biol Chem*, 287 (14) : 10977–10989.
  - 5) Karttunen J, Heiskanen M, Navarro-Ferrandis V, et al (2018) Precipitation-based extracellular vesicle isolation from rat plasma co-precipitate vesicle-free microRNAs. *J Extracell Vesicles*, 8 (1) : 1555410.

## 神経心理

### 93. Morality

- 1) Anderson SW, Bechara A, Damasio H, et al (1999) Impairment of social and moral behavior related to early damage in human prefrontal cortex. *Nat Neurosci*, 2 (11) : 1032–1037.
- 2) Grafman J, Schwab K, Warden D, et al (1996) Frontal lobe injuries, violence, and aggression : A report of the Vietnam head injury study. *Neurology*, 46 (5) : 1231–1238.
- 3) Damasio AR (1994) *Descartes' error : Emotion, reason and the human brain*. Putnam, NY.
- 4) Rolls ET, Hornak J, Wade D, et al (1994) Emotion-related learning in patients with social and emotional changes associated with frontal lobe damage. *J Neurol Neurosurg Psychiatry*, 57 (12) : 1518–1524.
- 5) Fellows LK and Farah MJ (2007) The role of ventromedial prefrontal cortex in decision making : judgment under uncertainty or judgment per se? *Cereb Cortex*, 17 (11) : 2669–2674.
- 6) Funayama M, Koreki A, Muramatsu T, et al (2019) Impairment in judgement of the moral emotion guilt following orbitofrontal cortex

damage. *J Neuropsychol*, 13 (3) : 550–563.

#### 94. 情動認知

- 1) 梅田聡, 小嶋祥三監(2020)感情 ジェームズ/キャノン/ダマシオ. 名著精選 心の謎から心の科学へ. 岩波書店, 東京.

#### 95. こころの理論

- 1) Premack D and Woodruff G (1978) Does the chimpanzee have a theory of mind? *Behav Brain Sci*, 1 (4) : 515–526.
- 2) Baron-Cohen S, Leslie AM and Frith U(1985)Does the autistic child have a “theory of mind” ? *Cognition*, 21 (1) : 37–46.
- 3) Milligan K, Astington JW and Dack LA (2007) Language and theory of mind : Meta-analysis of the relation between language ability and false-belief understanding. *Child Dev*, 78 (2) : 622–646.
- 4) Völlm BA, Taylor ANW, Richardson P, et al (2006) Neuronal correlates of theory of mind and empathy : A functional magnetic resonance imaging study in a nonverbal task. *NeuroImage*, 29 (1) : 90–98.
- 5) Wellman HM, Cross D and Watson J (2001) Meta-analysis of theory-of-mind development : The truth about false belief. *Child Dev*, 72 (3) : 655–684.

#### 96. 未来思考

- 1) Schacter DL, Benoit RG and Szpunar KK (2017) Episodic future thinking : Mechanisms and functions. *Curr Opin Behav Sci*, 17 : 41–50.
- 2) Atance CM and O’Neill DK (2001) Episodic future thinking. *Trends Cogn Sci*, 5 (12) : 533–539.
- 3) Ward AM (2016) A critical evaluation of the validity of episodic future thinking : A clinical neuropsychology perspective. *Neuropsychology*, 30 (8) : 887–905.
- 4) Lavender A and Watkins E (2004) Rumination and future thinking in depression. *Br J Clin Psychol*, 43 (Pt 2) : 129–142.
- 5) Schacter DL, Addis DR and Buckner RL (2007) Remembering the past to imagine the future : the prospective brain. *Nat Rev Neurosci*, 8 (9) : 657–661.

#### 97. 神経認知機能

- 1) American Psychiatric Association (2013) Diagnostic and statistical manual of mental disorders, fifth edition (DSM-5). Am Psychiatr Pub, Arlington.
- 2) American Psychiatric Association (2000) Diagnostic and statistical manual of mental disorders, fourth edition, text revision (DSM-IV-TR). American Psychiatric Association, Washington DC.
- 3) Ganguli M, Blacker D, Blazer DG, et al (2011) Classification of neu-

- rocognitive disorders in DSM-5 : a work in progress. *Am J Geriatr Psychiatry*, 19 (3) : 205-210.
- 4) 藤永保編 (1981) 心理学事典. 平凡社, 東京.
- 98. 遂行機能**
- 1) Lezak MD 著, 鹿島晴雄総監修, 三村將, 村松太郎監訳 (2005) レザック神経心理学的検査集成. 創造出版, 東京.
- 2) Daigneault G, Joly P and Frigon JY (2002) Executive functions in the evaluation of accident risk of older drivers. *J Clin Exp Neuropsychol*, 24 (2) : 221-238.
- 3) Hird MA, Egeto P, Fischer CE, et al (2016) A systematic review and meta-analysis of on-road simulator and cognitive driving assessment in Alzheimer's disease and mild cognitive impairment. *J Alzheimers Dis*, 53 (2) : 713-729.
- 4) Yamamoto Y, Yamagata B, Hirano J, et al (2020) Regional gray matter volume identifies high risk of unsafe driving in healthy older people. *Front Aging Neurosci*, 12 : 592979.
- 99. ミラーニューロン**
- 1) Rizzolatti G, Fogassi L and Gallese V (2006) Mirrors of the mind. *Sci Am*, 295 (5) : 54-61.
- 2) Keysers C and Gazzola V (2006) Towards a unifying neural theory of social cognition. *Prog Brain Res*, 156 : 379-401.
- 3) Iacoboni M and Dapretto M (2006) The mirror neuron system and the consequences of its dysfunction. *Nat Rev Neurosci*, 7 (12) : 942-951.
- 4) Kato Y, Muramatsu T, Kato M, et al (2012) Magnetoencephalography study of right parietal lobe dysfunction of the evoked mirror neuron system in antipsychotic-free schizophrenia. *PLoS One*, 6 (11) : e28087.
- 5) Wicker B, Keysers C, Plailly J, et al (2003) Both of us disgusted in My insula : the common neural basis of seeing and feeling disgust. *Neuron*, 40 (3) : 655-664.
- 6) Oberman LM, Hubbard EM, McCleery JP, et al (2005) EEG evidence for mirror neuron dysfunction in autism spectrum disorders. *Brain Res Cogn Brain Res*, 24 (2) : 190-198.
- 7) Jacob P and Jeannerod M (2005) The motor theory of social cognition : a critique. *Trends Cogn Sci*, 9 (1) : 21-25.
- 8) Saxe R (2005) Against simulation : the argument from error. *Trends Cogn Sci*, 9 (4) : 174-179.
- 100. 自己主体感/自己所有感**
- 1) Gallagher II (2000) Philosophical conceptions of the self : implications for cognitive science. *Trends Cogn Sci*, 4 (1) : 14-21.



- 2) Haggard P (2017) Sense of agency in the human brain. *Nat Rev Neurosci*, 18 (4) : 196–207.
- 3) Balconi M, ed (2010) *The sense of agency in psychology and neuropsychology*. Springer.
- 4) Haggard P and Eitam B, eds (2015) *The sense of agency*. Oxford University Press.
- 5) Braun N, Debener S, Spychala N, et al (2018) The senses of agency and ownership : A review. *Front Psychol*, 9 : 535.
- 6) 前田貴記 (2019) Sense of agency : 自己意識の神経心理学. *神経心理学*, 35 (4) : 178–186.