

CONTENT

Introduction	6
---------------------	----------

CHAPTER 1

Creative thinking and integrative neurophysiology (Shemyakina N.V., Starchenko M.G., Nagornova Zh.V.)

Part 1 Psychology of creative thinking - brief preview	10
--	----

Part 2 Physiology of creativity	14
---------------------------------	----

CHAPTER 2

Neuropsychological aspects of selected brain disorders (Aiello G., Finsterle G., Jariabková K., Kašpárek T., Keřkovský M., Ruisel I., Špajdel M.)

Part 1 Analysis of the resting brain: implications for schizophrenia research	38
---	----

Part 2 The use of Psycho-Acoustical Transitional sessions in patients suffering of moderate and severe Alzheimer's disease	46
--	----

Part 3 Verbal and nonverbal dichotic listening performance in developmental dyslexia	49
--	----

Part 4 A follow-up study of personality traits in Williams syndrome	54
---	----

CHAPTER 3

Autism and Asperger syndrome research from neuropsychohormonal perspective (Behuliak M., Celec P., Genčik M., Gundacker C., Kelemenová S., Kukučková M, Ostatnikova D., Pálffy R., Pražmářiová E.)

Part 1 Levels of testosterone and genetic factors participating in testosterone metabolism in autistic patients, patients with Asperger syndrome and intellectually gifted children	60
---	----

Part 2 Testosterone influence on reelin expression associated with autism pathogenesis	65
--	----

Part 3 Autism and genome-wide association studies	68
---	----

Part 4	Ecogenetics of low dose heavy metal exposure and its implications for human disease	75
--------	---	----

CHAPTER 4

Brain activity: Chaos, event-related oscillations and dynamic networks
(Bob P., Cimrová B., Dushanova J.A., Georgiev S.J., Ivanova I.Z., Jagla F., Jergelová M., Nikolova G.V., Philipova D.T., Riečanský I.)

Part 1	Chaos, brain and cognition	82
Part 2	Event related oscillations related to auditory discrimination task performance in Parkinsonian patients and healthy persons	88
Part 3	Dynamic networks: Saccadic eye movements and attention	95

CHAPTER 5

Blood pressure regulation: Neural and cardiovascular interactions
(Barta A., Bernátová I., Jendeková L., Key M.P., Kopincová J., Lucot J.B., Morris M., Paulis L., Pecháňová O., Púzserová A., Vranková S., Zeman M.)

Part 1	Activating effect of Provinols TM on brain nitric oxide synthase is time dependent	104
Part 2	Increased nitric oxide production in the brain contributes to beneficial effect of indapamide in the prevention of L-NAME induced hypertension	110
Part 3	Stress-induced alterations in blood pressure and drinking in rodents	116
Part 4	Social stress impact on blood pressure, vascular function, food and water intake in Wistar-Kyoto rats	122

CHAPTER 6

Risk factors in health and disease (Ághová L., Jurkovičová J., Kyselovičová O., Lauková P., Lipková J., Sobotová L., Ševčíková L., Škodová M., Štefániková Z., Vosečková A.)

- | | | |
|--------|---|-----|
| Part 1 | Health status trend of teachers and behavioral risk factors | 128 |
| Part 2 | Investigating the association among community noise exposure and cardiovascular risk scores | 133 |
| Part 3 | Quality of subjective perception in glaucoma patients with different level of physical activity | 139 |

CHAPTER 7

Pain perception: Gender differences (Benková M., Pechová K., Rokyta R., Yamamotová A.)

- | | | |
|--------|---|-----|
| Part 1 | Gender differences in nociception and interpretation of pain | 144 |
| Part 2 | Second to fourth digit length ratio (2D:4D) and gender differences in pain perception | 148 |