THE MANIFOLDS OF REM SLEEP



INTRODUCTION

On the 4th of September 1953, the journal Science published a pioneering article co-authored by Eugene Aserisnkj and Nathaniel Kleitman, entitled Regularly occurring periods of Eye Motility and Concomitant Phenomena during Sleep.

The discovery of REM sleep, characterized by peculiar electroencephalographic and behavioral features recurring across the night at regular intervals, allowed us to recognize an architectural nocturnal organization, and opened the perspective of neurophysiological and biochemical control mechanisms. However, the most fascinating aspect of REM sleep was its close temporal association with the oneiric experience, as most individuals reported that they were dreaming when awakened during REM sleep.

Being able to attribute an objective basis to subjective dimensions of dreams has fulfilled an ancestral desire of mankind and re-evaluated the relevance of psychological analysis.

The identification of REM sleep became a powerful trigger for new experimental and clinical advances. While the exploitation of REM sleep accompanied William Dement and the Stanford group to the identification of narcolepsy in the US, the French school leaded by Michel Jouvet investigated the consequences of cerebral and brainstem lesions in animals. Due to the dissociation between an active brain and a complete and generalized muscle atonia, REM sleep was also called paradoxical sleep and its typical polygraphic features were altered by experimental manipulations, creating the premises for the discovery of RBD by Carlos Schenck and Mark Mahowald.

On the 4th of September 2023, a team of 15 sleep experts from different countries and continents will meet virtually to celebrate what happened 70 years ago. However, it won't be a nostalgic anniversary, but instead, an intensive update on pre-clinical and clinical research focused on what happens during REM sleep and whether this affects the other side of the moon, i.e. non-REM sleep. Each speaker will have 20 minutes to illustrate the assigned topic while the operational headquarters will be located at King's College London where Liborio Parrino and Ivana Rosenzweig will physically coordinate the program.

The entire internet event will last approximately 7 hours and will be recorded to be later available for scholars, students and scientific societies. Thanks to the generous and dream-driven proposal of EIC Dieter Riemann, all presentations will become articles assembled in a special issue of the Journal of Sleep Research.

In an ideal world, the event should have been an in-presence meeting with all participants sitting together in the same environment discussing lively and enjoying a delicious edge of Parmesan cheese or a warm cone of fish-and-chips. Waiting for the next sleep anniversary, let's start warming up the engines and get ready for the REM sleep marathon.

Monday 04 September

14:00 - 14:45	Registration and Welcome
15:00 – 15:20	REM Sleep and History L. Parrino
15:25 - 15:45	REM Sleep and Neural Circuitry P. Luppi
15:50 - 16:10	REM Sleep and Homeostatic Processes J. Siegel
16:15 - 16:35	REM Sleep and Dreaming F Siclari
16:40 - 17:00	REM Sleep and Automatic Staging M Baumert
17:05 - 17:25	REM Sleep and Cyclic Phenomena R Ferri
17:30 -17:50	REM Sleep and Breathing R. Thomas
17:55 - 18:15	REM Sleep and Mental Disorders R. Benca
18:20 - 18:40	REM Sleep and Narcolepsy Y Dauvilliers

Monday 04 September (cont.)

18:40 - 19:00	Refreshments
19:05 – 19:25	REM Behavior Disorder C. Schenck
19:30 - 19:50	REM Sleep and Neurodegeneration A. Iranzo
19:55 – 20:15	REM Sleep and Epilepsy L. Nobili
20:20 - 20:40	REM Sleep and Insomnia D. Riemann
20:45 - 21:05	REM sleep and agrypnia excitata F. Provini
21:10 - 21:30	REM sleep and unmet issues I.Rosenzweig
21:35 - 21:55	Panel Discussion
22:00	Adjourn

SPEAKERS

- 1. Prof Liborio Parrino
- 2. Prof Pierre-Herve Luppi
- 3. Prof Jerome Siegel
- 4. Prof Francesca Siclari
- 5. Prof Mathias Baumert
- 6. Prof Raffaele Ferri
- 7. Prof Robert Thomas
- 8. Prof Ruth Benca
- 9. Prof Yves Dauvilliers
- 10. Prof Carlos Schenck
- 11. Prof Alex Iranzo
- 12. Prof Lino Nobili
- 13. Prof Dieter Riemann
- 14. Prof Federica Provini
- 15. Prof Ivana Rosenzweig

