【モーニングセッション 3 : Mystic Force of Pheromone and Healthy Behavior】

Mystic Force of Pheromone and Healthy Behavior

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Chemical signals are important part of the social communication in many mammals including *Homo sapiens*. Nowadays the traditional point of view on chemocommunication, as a mechanism of the reproductive and hierarchic coordination, is extended over the whole behavioral and somatic functions. In present paper I will try to summarize modern data about interrelationships between chemical signals and neuroendocrine and immunological functions. Here is outline of the talk:

1. Mammal pheromones, its issues and chemical structure.
2. Perception of pheromones, main olfactory system and accessory olfactory system.
3. Modulation of the male immunity by means female scent signals:

Behavioral and endocrine effects of the sexual signals;

Sexual behavior and an infection risk;

Dual effect of the female pheromones: enhancement of the innate immunity and suppression of the adaptive immunity;

Sexual pheromones as factor of the resistance to respiratory infection (flu virus as an example.

4. Scent of disease:

Scent attractiveness of infected animals;

Immune response to strange antigens as factor, which modifies chemical signals under an infection.

5. Human and chemical signals

Behavioral and physiological effects of human scents;

Hypothalamic and cortical responses to the sexual pheromones;

Social and psychophysiological factors of a subjective assessment of human scent;

Scent of stress;

Sexual pheromones and risk of the transmissive infection;

6. Applied perspectives:

Volatile compounds and diagnostics

Pheromones and correction of the sexual behavior and endocrine status.

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