



SHORT REPORT ON THE **ISN SPONSORED SYMPOSIUM**
EATING DISORDERS: FROM BENCH TO BEDSIDE AND RETURN



Chairpersons:

M. Beatrice Passani (*Dip. di Neuroscienze, Psicologia, Area del Farmaco e Salute del Bambino, Università di Firenze*);

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The XVI SINS congress has brought together scientists from diverse scientific areas in the neuroscience field, providing most recent results with the aim of encouraging translational research, deepen the understanding of neurological diseases and improving treatments and cures. The high scientific quality of the meeting program has attracted many Italian researchers and has involved International speakers, reaching the ambitious goal of almost 400 attendees. Importantly, the congress organization has strongly encouraged the attendance of young researchers from Italian as well as Foreign Institutions.

The selected symposium, "**Eating disorders: from bench to bedside and return**" has gathered together basic scientists and clinicians, with the objective of presenting novel perspectives in the neurobiology of eating disorders, and most recent advances on the neurophysiological dysfunctions underpinning these disorders. The central nervous system and viscera are constantly engaged in reciprocal communication. This functional *ensemble*, the gut-brain axis, allows bidirectional information flow that contributes to the control of feeding behaviour based not only on the homeostatic, but also on the hedonic aspects of food intake. Stress-induced food-reward behaviours that seem to play a major role in the development of eating disorders, have attracted growing attention. Fervid clinical and preclinical research is constantly adding new information to the field and orienting further studies with the aim of providing a foundation for developing more specific and effective treatment approaches to pathological conditions. The symposium brought together basic scientists and clinicians who presented novel perspectives in the neurobiology of eating disorders.

Clinical studies presented by Prof. **Valdo Ricca** (Dip. di Neuroscienze, Area del Farmaco e Salute del Bambino, University of Florence) showed the results of a 7-year follow up clinical study on patients suffering from eating disorders. The results presented highlighted the positive association between the BclI receptor gene polymorphism (rs41423247), childhood overweight and the psychopathology, as well as the clinical outcomes of eating disorders.

Prof. Thomas Lutz (Institute of Veterinary Physiology Vetsuisse-Faculty University of Zurich) in his presentation recapitulated the best characterized and validated animal models of eating disorders and obesity or food addiction, as basic research in this field is highly focused on experimental models, which allow a better characterization of the cause-effects relationship between genetic and environmental factors involved in the etio-pathogenesis of such pathologies. With his presentation Dr Lutz highlighted the key aspects of each model that mimic critical traits of the human pathologies.

Novel interactions between peripheral and central circuits that govern food intake, mood and stress were presented by two young investigators, namely **Dr Adele Romano** (Dip. di Fisiologia e Farmacologia V.Erspamer, Sapienza Università di Roma) and **Dr Gustavo Provensi**, (Dip. di Neuroscienze, Psicologia, Area del Farmaco e Salute del Bambino, Università di Firenze). Both presentations focused on the role played by the endogenous satiety factor oleoylethanolamide (OEA) at the crossroad of eating and mood disorders. In particular, Dr Adele Romano presented evidence supporting the role of OEA as a gut-derived satiety factor able to modulate central mechanisms that are involved in both the homeostatic and hedonic aspects of food intake regulation. Dr Provensi highlighted the role of the central histaminergic system in mediating OEA's effects not only in the regulation of feeding but also in the pro-cognitive and antidepressant-like effects that OEA exerts through the activation of PPAR-alpha receptors.

Dr Markus Leweke (Dept. of Psychiatry und Psychotherapy, Zentralinstitut für Seelische Gesundheit Mannheim) was unable to attend the meeting. His presentation on the role of OEA in the regulation of appetite in humans would have certainly contributed to broaden the experimental data on OEA and to offer a translational perspective for the interpretation of these novel findings.

Because the prevalence of eating disorders, especially obesity, poses an enormous clinical burden, and involves an ever-growing percentage of the population worldwide, the symposium met the interest not only of the academia, but also of industry and stimulated an interesting debate between the speakers and the audience.

COGNOME	NOME	CITTA'	RUOLO		VIAGGIO	SOGGIORNO
Gaetani	Silvia	Roma	Chair	ISN Sponsor	€ 140,00	€ 300,00
Leweke	Markus	Mannheim Germany	Speaker	ISN Sponsor	€ 315,00	€ 450,00
Lutz	Thomas	Zurigo Svizzera	Speaker	ISN Sponsor	€ 686,00	€ 470,00
Passani	Beatrice	Firenze	Chair	ISN Sponsor	€ 179,00	€ 300,00
Provensi	Gustavo	Firenze	Speaker	ISN Sponsor	€ 126,00	€ 450,00
Ricca	Valdo	Firenze	Speaker	ISN Sponsor	€ 260,00	€ 150,00
Romano	Adele	Roma	Speaker	ISN Sponsor	€ 140,00	€ 0,00
Subtotali					€ 1.846,00	€ 2.120,00
TOTALE					€ 3.966,00	

CONTRIBUTO ISN usd 4.000 = €
3,618

Please note that Prof Leweke was unable to attend the meeting due a car accident on the way to the airport. Because last minute notification of no attendance, both travel and accommodation expenses were charged.