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**INFORMATION PROCESSING
IN THE SOMATOSENSORY SYSTEM**

INFORMATION PROCESSING IN THE SOMATOSENSORY SYSTEM

Proceedings of an International Symposium
at the Wenner-Gren Center, Stockholm, 3–5 July, 1989

Edited by

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Contents

<i>The Contributors</i>	ix
<i>Preface and a Dedication to Vernon B. Mountcastle</i>	xiv
<i>The Scientific Committee</i>	xvi
<i>The Participants of the IUPS Satellite Symposium</i>	xvii
<i>Touch A Poem by Ove Franzén</i>	xviii
<i>Touch An Aquarelle by Susanne Hedlund</i>	xix
<i>Acknowledgements</i>	xx

PART I GENERAL OVERVIEWS

1. The vicissitudes of representations in the neuro-behavioral sciences <i>G. Werner</i>	3
2. Capacities and limitations of tactile processing <i>J. C. Craig</i>	11

PART II PERIPHERAL TRANSDUCTION AND ENCODING

3. Afferent signals during manipulative tasks in humans <i>R. S. Johansson and G. Westling</i>	25
4. Surface microgeometry: Tactile perception and neural encoding <i>R. H. LaMotte and M. A. Srinivasan</i>	49
5. Encoding of shape in the responses of cutaneous mechanoreceptors <i>M. A. Srinivasan and R. H. LaMotte</i>	59
6. Neural population encoding of touch intensity <i>O. Franzén, D. Kenshalo, Sr. and G. Essick</i>	71
7. Peripheral neural basis for the tactile perception of texture <i>A. W. Goodwin and K. T. John</i>	81

**PART III STRUCTURE CONNECTIVITY AND
TRANSMITTER AGENTS IN THE SOMATOSENSORY SYSTEM**

8.	Cellular organization in the primate post-central gyrus <i>E. G. Jones</i>	95
9.	GABAergic neurones and terminals in the dorsal column nuclei and the lateral cervical nucleus <i>J. Westman</i>	109
10.	Excitatory amino acid receptor mediated synaptic transmission in the somatosensory system <i>A. M. Thomson</i>	133
11.	Quantitative measurements of receptive field changes during antagonism of GABAergic transmission in primary somatosensory cortex of cat and monkey <i>H. Burton and K. Alloway</i>	143
12.	Distribution of thalamic input to the sensorimotor cortex of the macaque monkey <i>I. Darian-Smith and C. Darian-Smith</i>	155

**PART IV REPRESENTATIONS, MAPPING AND
MODIFIABILITY**

13.	Ontogenetic and phylogenetic perspectives on somatic sensory cortex and tactile function <i>M. Carlson</i>	177
14.	Neural ontogeny of higher brain function: Implications of some recent neurophysiological findings <i>M. M. Merzenich, T. T. Allard and W. M. Jenkins</i>	193
15.	The parcellation of somatosensory cortex: Modules, columns and somatotopic segregations <i>J. H. Kaas</i>	211
16.	Detection and characterization of the mosaic body representation in SI Cortex <i>O. V. Favorov</i>	221
17.	A cortical pathway important for tactual object recognition in macaques <i>T. P. Pons</i>	233
18.	Neuromodulatory substances, somatosensory cortical neuronal responsiveness and long-term changes in neuronal excitability <i>R. W. Dykes, N. Tremblay and R. Warren</i>	245
19.	Plasticity and functional mutability of somatosensory pathways <i>U. NorrSELL</i>	265

CONTENTS

vii

20. The physiological anatomy of a single brain function: Somatosensory discrimination of shape *P. E. Roland and R. J. Seitz* 275

PART V DYNAMIC CORTICAL MECHANISMS IN SOMESTHESIS

21. Cortical neuronal mechanisms for frequency discrimination in the somesthetic sense of flutter *M. A. Steinmetz, R. Romo and V. B. Mountcastle* 289
22. Tactile pattern recognition *K. O. Johnson, J. R. Phillips, S. S. Hsiao and I. N. Bankman* 305
23. Transformation of spatio-temporal information by somatosensory neural networks *S. Warren, H. A. Hämmäläinen, C. I. Palmer and E. P. Gardner* 319
24. Human capacity to process directional information provided by tactile stimuli which move across the skin: Characterization and potential neural mechanisms *G. K. Essick* 329
25. Utilization of temporal and spatial cues to judge the velocity and traverse length of a moving tactile stimulus *G. K. Essick, O. Franzén, A. McMillian and B. Whitsel* 341
26. Mechanisms of dynamic peri- and intra-columnar interactions in somatosensory cortex: Stimulus-specific contrast enhancement by NMDA receptor activation *B. L. Whitsel, O. V. Favorov, D. G. Kelly and M. Tommerdahl* 353
27. Organization of the first somatosensory cortex for manipulation of objects: An analysis of behavioral changes induced by muscimol injection into identified cortical loci of awake monkeys *Y. Iwamura and M. Tanaka* 371

PART VI PAIN AND NOCICEPTIVE MECHANISMS

28. Specificity in characteristics of fine primary afferent fibers *E. R. Perl* 383
29. Hyperalgesia *E. Torebjörk* 399
30. The role of primate spinothalamic neurons in hyperalgesia *W. D. Willis, Jr* 40^F

31. Specialized neurons in the medullary dorsal horn and the somatosensory cortex involved in the perception of pain <i>R. Dubner and D. R. Kenshalo, Jr</i>	415
32. Slow potentials, receptive field plasticity and pain <i>C. J. Woolf and S. W. N. Thompson</i>	427
33. Plasticity of the neural events related to pain <i>J. N. Campbell and R. A. Meyer</i>	439
34. Neuropeptide interactions with pain <i>L. Terenius</i>	453
<i>Index</i>	461

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Preface

In science, as well as in art, the human hand and the brain are closely linked partners. The theme of this symposium was the study of the neural mechanisms of tactile perception, that is to say, the neural representation of the external world relayed through the somatosensory system.

The most productive approach to this problem is that of single neuron analysis, which has led to successful explanations of primitive aspects of perception with relatively simple, but adequate, linking hypotheses.

However, all of us who have practised this discipline of the neurosciences know that it is misnamed. The aim has never been to study single neurons in isolation, but rather, to reconstruct population events that are going on in the nervous system. It is therefore obvious that the most fruitful path to future research would be to study significant samples of those neuron populations that are assumed to be essential for the perceptual processes.

The most powerful tool in research is a good idea and a good hypothesis. In this respect, Vernon Mountcastle's contributions to neuroscientific knowledge and endeavour have few parallels. The breadth, focus and scientific creativity of his contributions have had an impact on current thinking about the major issues related to the operation and functioning of the nervous system that cannot be overstated.

The scope of his influence has led most of us who are engaged in research on the nervous system to realize that our findings are relevant to, and frequently anticipated by, the concepts of nervous-system function that were identified and developed by Vernon Mountcastle himself.

Since the 1990s have been declared as being "The decade of the brain", it is most appropriate to dedicate this volume to Vernon Mountcastle for his pioneering discovery of the columnar organization of the somatosensory cortex and for his many other important contributions to our understanding of the neural mechanisms of the higher functions of the brain.

Ove Franzén
Uppsala
September, 1990

Professor Vernon B. Mountcastle, M.D.

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The participants of IUPS satellite symposium in front of
Wenner-Gren Center, Stockholm

TOUCH

The cranium is a storehouse
Stacked with the testimony
Of myriads of memory
That incessantly raise experience
To the rank of life.

Meissner and Vater Pacini,
The Apollo and Mercury of the skin,
Are the swift heralds of touch.

Impulse trains leave the fingertip
In saltatory frenzy
Journeying to the gracile core.
A flow of rhythmic signals
Passes the thalamic crossroad
For smooth forwarding
To the pyramidal cells of the central convolution,
Whose lofty architecture strives upward
Towards Cajal's solitary body.

In limbic expectancy you experience
The ecstasy and repose of touch
In your hands' encounter with the hip's soft parabola, -
The conclusive evidence that overcomes our distance
And points inward, nakedly,
To the core of being.

Ove Franzén

Horisont, 1986, No 3, p. 53
(Horizon, Scandinavian Literary Review)

TOUCH, Aquarelle (1989)

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