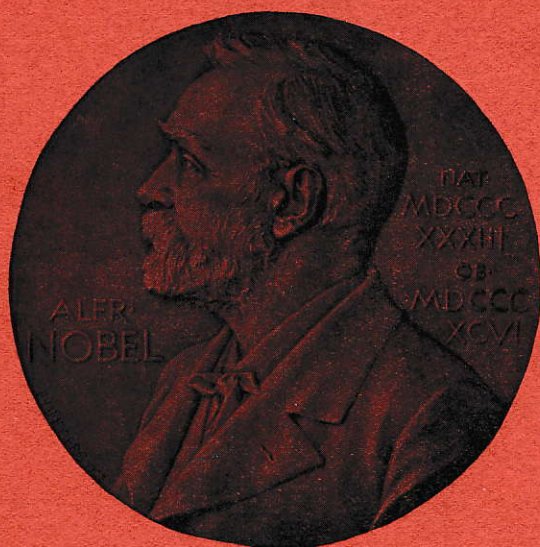


NOBEL SYMPOSIUM I

Muscular Afferents and Motor Control

Programme



NOBEL SYMPOSIUM I

MUSCULAR AFFERENTS

AND MOTOR CONTROL

1—4 JUNE

STOCKHOLM 1965

Sponsors

The Royal Swedish Academy of Science

The Royal Caroline Medico-Surgical Institute

The Nobel Foundation

The Swedish Medical Research Council

Svenska Handelsbanken

Organizer of Symposium

Staff and guest workers of The Nobel Institute for Neurophysiology,
Karolinska Institutet, Stockholm 60

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R. Granit	R. S. Smith
D. G. Green	A. J. Szumski
J.-O. Kellerth	U. Söderberg
D. Kernell	B. Waltman

General information

Addresses & Telephones The address (for taxis) of the Neurophysiological Department of the Medical Nobel Institute is Karolinska Institutet, Solnavägen 1 (Stockholm 60). Tel. 33 60 59.

The Symposium is at Södergarn, Lidingö, Tel. Reception 65 66 05; Lecture Office 65 66 00, 65 66 01.

Mail should be addressed to the Nobel Institute for Neurophysiology, Karolinska Institutet, Stockholm 60, not to Södergarn.

Bank service by Svenska Handelsbanken at Södergarn, 1—3 June, 12.00—2.00 o'clock

Lecture office Enquiries at Södergarn is just outside Lecture Hall. Miss Gunvor Larsson, Secretary of the Nobel Institute for Neurophysiology, will occupy it during Lecture hours. Mail will be delivered and accepted at the Office. Members of the Nobel Institute will be available for enquiries at all hours. Room no. 1 will always be occupied by a member in lodging.

Conference rooms For special discussions within groups of participants some conference rooms are available. Enquiries at Lecture Office.

Slides It is expected that most participants will use format 5×5 cm, but equipment for 8.3×8.3 cm is available.

Pantry There is a small pantry on the upper floor of the west wing where coffee or tea can be made by guests staying at Södergarn.

Transport A number of cars run by members of the Nobel Institute are at the disposal of the Symposium. Apply at Lecture Office.

Arrivals Guests who have given flight times will be met by staff members in VW minibuses at the Air Terminal in *Stockholm*. There will be served a buffet dinner at Södergarn on May 30th. Unexpected delays in air transport may force guests to take a taxi for the Institute (address given above) from which transport to Södergarn will be arranged.

Entertainments Unless special notice is given by guests *in advance*, invited participants are automatically registered also as participants at Dinner June 1st given by Svenska Handelsbanken (alternatively Ladies' Dinner on June 1st), at Opera Ballet on June 2nd, at Banquet on June 3rd.

Discussions It is intended to have brief summaries of the discussions written by members of the Institute. These summaries will not refer to names of individual contributors. Those wishing to enter signed contributions for publication, should do so before leaving Stockholm.

Banquet This is at Sjöfartshuset, Skeppsbron 10, in the Old City. Ordinary dress.

PROGRAMME

Tuesday June 1st

- 8.00— 9.20 BREAKFAST
- 9.20 Departure by bus from Södergarn to the Royal Swedish Academy of Science
- 10.00—10.10 Welcoming addresses
- 10.10—10.30 *Lord Adrian* (Cambridge) to inaugurate I Nobel Symposium.
- 10.30—10.45 PAUSE
- 10.45—11.15 *Sir John Eccles* (Canberra): Functional organization of the cerebellum in relation to its role in motor control.
- 11.15—11.45 *Ragnar Granit* (Stockholm): Effects of stretch and contraction on the membrane of motoneurons.
Departure by bus for Södergarn
- 12.00— 2.00 LUNCH
- Chairman: Sybil Cooper*
- 2.00— 2.15 *Barker* (Durham): The motor innervation of the mammalian muscle spindle.
- 2.15— 2.30 *Boyd & Davey* (Glasgow): The distribution of two types of small motor nerve fibre to different muscles in the hind limb of the cat.
- 2.30— 2.45 *Smith* (Stockholm): Properties of intrafusal muscle fibres.
- 2.45— 3.00 *Bésson & Laporte* (Toulouse): Observations on static fusimotor fibres.
- 3.00— 3.15 *Jansen* (Oslo): On fusimotor reflex activity.
- 3.15— 3.30 *Appelberg* (Stockholm): A high-conduction velocity spinorubral pathway in the cat.
- 3.30— 4.00 TEA/COFFEE
- 4.00— 4.45 DISCUSSION
- 4.45— 5.00 *Glaser & Higgins* (New Haven): Motor stability, stretch responses and the cerebellum.

5.30— 5.15 *Van Der Meulen, Gilman & Denny-Brown*: Muscle spindle activity in animals with chronic lesions of the central nervous system.

5.30— 6.00 DISCUSSION

7.00 DINNER (by invitation) to be given by Svenska Handelsbanken.

Ladies' programme includes sightseeing in the afternoon and dinner given by Daisy Granit and Marianne von Euler at restaurant.

Wednesday, June 2nd

8.00— 9.30 BREAKFAST

Chairman: Sir John Eccles

9.30— 9.45 *Eldred* (Los Angeles): Contributions of proprioceptors to the shivering tremor.

9.45—10.00 *Henatsch* (Göttingen): Spinal motor systems and dynamic/static properties of muscle spindles in experimental tremor states of the cat.

10.00—10.15 *Hagbarth & Eklund* (Uppsala): Motor effects of vibratory muscle stimuli in man.

10.15—10.30 REFRESHMENTS

10.30—10.45 *Sears* (London): Pathways of supra-spinal origin regulating the activity of respiratory motoneurons.

10.45—11.00 *von Euler* (Stockholm): Proprioceptive control in respiration.

11.00—11.15 *Eyzaguirre* (Salt Lake City): The motor control of laryngeal muscles.

11.15—12.00 DISCUSSION

12.00— 2.00 LUNCH

Chairman: Yngve Zotterman

2.00— 2.15 *Matthews* (Cambridge): Single fibre activation of central nervous activity.

- 2.15— 2.30 *Homma* (Chiba): Firing of cat motoneurone and summation of the excitatory postsynaptic potential.
- 2.30— 2.45 *Skoglund* (Stockholm): Muscle spindles and motor control in the newly born kitten.
- 2.45— 3.00 *Bosemark* (Lund): Some aspects on the crossed extensor reflexes.
- 3.00— 3.30 TEA/COFFEE
- 3.30— 4.00 DISCUSSION
- 4.00— 4.15 *Hufschmidt* (Frankfurt/M): Demonstration of autogenetic inhibition and its significance in voluntary movement of man.
- 4.15— 4.30 *Lundberg* (Göteborg): Integration in the reflex pathway.
- 4.30— 5.00 DISCUSSION
- 5.00— 6.45 DINNER
- 6.45 Departure by bus for Opera Ballet
- 10.30 Departure by boat for Södergarn

Thursday, June 3rd

- 8.00— 9.30 BREAKFAST
- Chairman: Sir Bryan Matthews*
- 9.30— 9.45 *Oscarsson* (Lund): The projection of Group I muscle afferents to the cat cerebral cortex.
- 9.45—10.00 *Phillips et al.* (Oxford): Thresholds of cortical control of fusimotor and alpha motoneurons of the baboon's hand.
- 10.00—10.15 *Wilson* (New York): Regulation and function of Renshaw-cell discharge.
- 10.15—10.30 REFRESHMENTS
- 10.30—10.45 *Shapovalov* (Leningrad): Excitation and inhibition of spinal neurones during supraspinal stimulation.
- 10.45—11.00 *Kernell* (Stockholm): The repetitive discharge of lumbosacral motoneurons.

- 11.00—11.15 *Williams* (Bristol): Some aspects of synaptic noise in motoneurons.
- 11.15—12.00 DISCUSSION
- 12.00— 2.00 LUNCH

Chairman: Bernard Katz

- 2.00— 2.15 *Terzuolo* (Minneapolis): Distribution of synaptic inputs in spinal motoneurons and its functional significance.
- 2.15— 2.30 *Kellerth & Szumski* (Stockholm): Postsynaptic inhibitions from muscular afferents differentiated by strychnine and picrotoxin.
- 2.30— 3.00 DISCUSSION
- 3.00— 3.30 TEA/COFFEE
- 3.30— 3.45 *Fujimori* (Sapporo): Studies on the mechanism of spasticity following spinal hemisection in the cat.
- 3.45— 4.00 *Pompeiano* (Pisa): Muscular afferents and motor control during sleep.
- 4.00— 4.15 *Steg* (Göteborg): Efferent muscle control in rigidity.
- 4.15— 5.00 DISCUSSION
- 6.00 Departure by bus for banquet.
Departure from banquet by taxis.

Friday, June 4th

- 8.00— 9.30 BREAKFAST
- Chairman: Giuseppe Moruzzi*
- 9.30—10.00 Nomenclature proposed by Professor *Laporte*.
- 10.00—11.00 Additional communications after notification, films.
- 11.00—11.30 DISCUSSION
- LUNCH

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