

CURRICULUM VITAE

JACK A. BOULANT

BUSINESS ADDRESS: Department of Physiology & Cell Biology
201 Hamilton Hall, College of Medicine
The Ohio State University,
1645 Neil Avenue
Columbus, Ohio 43210

TELEPHONE: 614/292-7407 **FAX:** 614/292-4888 **e-mail:** boulant.1@osu.edu

UNIVERSITY EDUCATION:

- 1963 - 67: Colgate University
Hamilton, New York (B.A. with Zoology Major).
- 1967 - 71: University of Rochester School of Medicine and Dentistry
Rochester, New York (Ph.D. in Physiology).
- 1971 - 74: Yale University School of Medicine and
John B. Pierce Foundation Laboratory, New Haven, Conn.
(Postdoctoral Fellow: Environmental Physiology/Neurophysiology).

RESEARCH AND PROFESSIONAL EXPERIENCE:

- 1984 - Professor, Department of Physiology
& the Neuroscience Graduate Studies Program
Ohio State University, College of Medicine Columbus, Ohio.
- 1977 - 84: Associate Professor, Department of Physiology
Ohio State University, College of Medicine Columbus, Ohio.
- 1974 - 77: Assistant Professor, Department of Physiology
University of South Florida, College of Medicine, Tampa, Florida.
- 1972 - 74: NIH Postdoctoral Fellow, Department of Epidemiology
Yale University, School of Medicine, New Haven, Connecticut.
- 1971 - 74: Visiting Assistant Fellow, John B. Pierce Foundation Laboratory
New Haven, Connecticut.

JACK A. BOULANT

RESEARCH GRANT SUPPORT AS PRINCIPAL INVESTIGATOR

PROJECT TITLE	SUPPORTING AGENCY	TIME PERIOD	DIRECT COSTS
<u>CURRENT GRANT SUPPORT</u>			
<i>The Neural Control of Temperature Regulation</i>	NIH	8/96-7/01	\$808,036
<u>PLANNED GRANT SUBMISSION</u>			
<i>Ethanol & Thermoregulation: Neural and Genetic Basis</i>	NIH		
<u>PREVIOUS GRANT SUPPORT</u>			
<i>The Neural Control of Temperature Regulation</i>	NIH	3/91-2/96	\$505,178
<i>Mechanisms of Osmosensitivity In Hypothalamic Neurons</i>	Am. Heart Assoc. Ohio Affiliate	7/90-6/92	\$40,000
<i>The Neural Control of Temperature Regulation</i>	NIH	9/85-12/89	\$239,527
<i>Hypothalamic Neuronal Sensitivity in Pregnant WKY/SHR Rats</i>	NIH Physician Scientist Award: D. Christenson M.D. (Boulant: sponsor)	9/85-5/91	\$263,165
<i>Functional Specificity of Neurons in Hypothalamic Tissue Slices</i>	NSF	4/85-3/88	\$195,000
<i>Hypothalamic Neuronal Sensitivity in Hypertensive Rats</i>	American Heart Assoc. (National Program)	7/84-8/87	\$111,421
<i>The Neural Control of Temperature Regulation</i>	NIH	9/81-8/85	\$169,491
<i>Peripheral Circulation: Neural Control in Normal & SHR Rats</i>	American Heart Association (National Program)	9/81-8/84	\$90,860
<i>The Neural Control of Temperature Regulation</i>	NIH	7/78-6/81	\$144,763
<i>Central Neuronal Control of the Peripheral Circulation</i>	American Heart Assoc. (National)	9/78-8/81	\$54,340
<i>Effect of Hypoxia, Pyrogen & Blood Glucose in Thermosensitive Neurons in the Developing Brain</i>	The National Foundation - March of Dimes	7/78-6/80	\$42,000
<i>Effect of Hypoxia on Characteristics</i>	Basil O'Connor Research	9/75-6/78	\$47,741

*of an Integrative Neuronal Network
in the Developing Brain*

Grant: National Foundation-
March of Dimes

*Thermoregulatory Control of
Peripheral Blood Flow*

American Heart
Association -
Florida Affiliate

1/75-12/77

\$33,895

JACK A. BOULANT

ENDOWED POSITION:

1983 - present: F.A. Hitchcock Professor
of Environmental Physiology

EDITORIAL BOARDS:

1980 - 1990: Member of the Editorial Board:
***American Journal of Physiology:
Regulatory, Integrative, Comp. Physiol.***

1993 - 2000: Member of the Editorial Board:
The Journal of Physiology (London)

ACADEMIC HONORS & INVITED PRESENTATIONS:

1983: American Physiological Society Tutorial Lecturer
Honolulu, Hawaii; 23 August 1983.

1988: Speaker at Temperature Regulation Dinner
FASEB Meeting, Las Vegas, Nevada; 3 May 1988 .

1988: Japan Society for Promotion of Science
30-Day Travel Fellowship to visit
eight universities in Japan (July 1988) .
- Saga, Nagasaki, Ube, Osaka,
Kanazawa, Kyoto, Orio and Yamaguchi.

1993: Invited Symposium Address
World Federation of Sleep Research Societies
Maui, Hawaii, March 13-17, 1993

1993: Invited Symposium Address
IUPS Thermal Physiology Symposium
Aberdeen, Scotland, August 9-13, 1993

JACK A. BOULANT

ACADEMIC HONORS & INVITED PRESENTATIONS: (continued)

- 1994: Invited Symposium Address
Pharmacology of Thermoregulation Symposium
Giessen, Germany, August 8-12, 1994
- 1995: Invited Symposium Address
Joint Meeting of Physiol. Societies of Japan, UK & Eire
Nagoya, Japan, April 1-2, 1995
- 1996: Tutorial Lecture & Symposium Address
Annual Meeting of the American College of Sports Medicine
Cincinnati, Ohio, May 30 & June 1, 1996
- 1997: Invited Symposium Address
International Joint Meeting of
Spanish & American Physiological Societies
Malaga, Spain, February 4-7, 1997
- 1997: Invited Symposium Address:
Milestones in Thermal Physiology
Experimental Biology '97
New Orleans, LA (USA), April 6-9, 1997
- 1997: Invited Symposium Address:
Cellular Mechanisms of Thermoregulation
XXXIII International Congress of Physiological Sciences
St. Petersburg, Russia, June 30-July 5, 1997
- 1997: Invited Symposium Address:
Maladaptation to Exercise & Heat Exposure
World Congress-International Society for Adaptive Medicine
Framingham, MA (USA), September 7-10, 1997
- 1998: Invited Symposium Address:
Mechanisms of Adaptation to Environmental Changes:
International Symposium on Human Biometeorology
Fuji-Yoshida, Yamanashi, Japan, August 31-Sept. 2, 1998.

JACK A. BOULANT

ACADEMIC HONORS & INVITED PRESENTATIONS: (continued)

- 1998: Japan Society for Promotion of Science
Travel Fellowship to visit four institutions
in Japan (August-September 1998).
- Yamanashi Institute of Environmental Sciences
- Kyushu University, Faculty of Medicine
- Kyoto Institute of Technology
- Osaka University Medical School
- 1999: Invited Symposium Address:
Cellular mechanisms of neuronal thermosensitivity
International Symposium on the Pharmacology of
Thermoregulation, Seville, Spain, 10-13 May 1999.
- 1999: Invited Workshop Address:
Workshop on Modern Techniques in Thermoregulation Research. Address
on "Modern techniques in electrophysiology"
International Symposium on the Pharmacology of
Thermoregulation, Seville, Spain, 10 May 1999.
- 1999: Invited Symposium Address:
Antipyretic Therapy Symposium.
Address on "The hypothalamus as the thermoregulatory center"
Parson Island, Maryland, 25-28 August 1999,

JACK A. BOULANT

INTERNATIONAL & NATIONAL COMMITTEES

- 1990 - 1999: Member (Secretary and Finance Chairman)
International Union of Physiological Sciences
Commission on Thermal Physiology (12 members)
- 1993 - 1996: Member of APS Steering Committee
Environmental & Exercise Physiology Section
- 1991 - 1994: Member of the Education Committee
American Physiological Society (8 members)
- 1992 - 1994: Member of APS Liason With Industry Committee
- 1992 - pres: Experimental Biology Temperature Regulation Dinner Committee
- 1997: Organizer and Chair of Symposium
“Cellular Mechanisms in Thermal Regulation”
XXXIII International Congress of Physiological Sciences
St. Petersburg, Russia, July 4, 1997
- 1999: Co-Chair of Symposium
Session: *“Neural Control of Thermoregulation”*
XI International Symposium: Pharmacology of
Thermoregulation, Seville, Spain, 10-13 May 1999.

MEMBERSHIPS:

American Physiological Society
Society for Neuroscience

JACK A. BOULANT

REFEREE: JOURNALS

The Journal of Physiology, London (Editorial Board: 1993-2000)

American Journal of Physiology (Editorial Board: 1980-1990)

American Journal of Physiology:

- Regulatory, Integrative and Comparative Physiology

- Endocrinology and Metabolism

- Modeling Methodology Forum

Journal of Pharmacology & Experimental Therapeutics

Proceedings of the National Academy of Sciences

Canadian Journal of Physiology & Pharmacology

Journal of the Autonomic Nervous System

Pharmacology Biochemistry & Behavior

Pflügers Arch: European J. Physiology

Journal of Comparative Physiology A

(Sensory, Neural & Behavioral Physiology)

Journal of Comparative Physiology B

Journal of Interferon Research

Journal of Applied Physiology

Experimental Brain Research

Journal of Thermal Biology

Neurochemical Research

Journal of Neuroscience

Journal of Neurobiology

Brain Research Bulletin

Neuroscience Letters

Physiological Zoology

Brain Research

Heart & Lung

Cryobiology

Peptides

Alcohol

Science

REFEREE: BOOK CHAPTERS

APS Handbook of Physiology: Adaptation to the Environment

Human Performance Physiology & Environmental Medicine at Terrestrial Extremes

Handbook of the Hypothalamus

REVIEWER: GRANTING AGENCIES

Member - University Review Committee for Interdisciplinary Research Grants: 1990

Member - Special Study Section: National Institute of Mental Health

Neurology B-1 (NEUB-1 AHR SI); Crystal City, Va: January 8, 1986

Member - Special Study Section & Site Visit: National Institute of Health

Dallas, Texas: July 15-16, 1985

Member - Special Study Section: National Institute of Mental Health

Bethesda, Maryland: July 7-8, 1985

Member - Special Study Section & Site Visit: National Institute of Health

Champaign, Illinois: July 27-28, 1981

Member - Research/Fellowship Committee

Central Ohio Heart Association: 1981 - 1986

Member - Research Peer Review Committee

Ohio Affiliate of the American Heart Association: 1985 - 1986

Reviewer - National Institute of Health

- Experimental Cardiovascular Sciences; Applied Physiology & Orthopedics
Reviewer - National Science Foundation
- Neurobiology; Regulatory Biology
Reviewer - Manitoba Health Research Council
Reviewer - American Heart Association, Florida Affiliate

JACK A. BOULANT

UNIVERSITY ADMINISTRATIVE SERVICES:

PHYSIOLOGY DEPARTMENT COMMITTEES

1. Graduate Studies Committee (1979-81;1986-91;1993-96) (Chair, 1980-81)
2. Chairman's Advisory Committee (1980-1982, 1990-present)
3. Search Committee (1981, 1982-83; 1986-89)
4. Medical Teaching Phase II Committee (1981-1987)
5. Appointments, Promotion & Tenure Committee
(1982, 1985-88, 1991-1994, 1996-98) (Chair, 1986-87, 1993-94)
6. Curriculum Committee (1983-88)
 - Merit Committee (1985, 1989; 1991-94; 1996-99; 2000-03)
(Chair, 1989, 1993-94)
8. Space & Renovations Committee (1986-1989)
9. Qualifying Examination Committee (1986-89) (Chair)
10. Physiology Department Seminar Chairman (Fall 1990, Winter 1995, Winter 1999)
11. Junior Faculty Advisory Committee/Peer Teaching Review
(Lyn Jakeman) (1999-)
12. Strategic Planning Committee (1997-1999)
13. Distinguished Scholar Award Committee (1997-1999)

COLLEGE & UNIVERSITY COMMITTEES AND GROUPS

1. Med I Academic Program Committee (1981-83; 1989-92)
2. Neuroscience Laboratory Ad Hoc Committee (1981)
3. Central Ohio Neuroscience Society (Council Member 1981-85)
4. ICSABER (1981-84)
5. Reyes Syndrome Study Group (1981)
6. College of Medicine Research Retreat: Facilities Study Group (1984)
7. Vivarium Facilities Committee (1985-87)
8. Med I Revision Committee: Neurosciences (1987)
9. Med I Neuroscience Teaching Committee (1991-present)
10. Medical Shop Committee (1989)
11. Dean's Research Retreat Committee (1989-90)
12. Committee on Administrative Policy for Research (1985-89)(Chair,87-89)
13. University Review Committee for Interdisciplinary Research Grants (1990)
14. College of Medicine Faculty Council (Alternate Representative, 1992-94)
15. Biomedical Science Graduate Program Planning Committee (1997)
16. College of Medicine Promotion & Tenure Committee (1995-1998)
17. Med I Neuroscience Teaching Committee
(*Mini Module Director – Sensory Systems*)

18. Search Committee for Chair of Physiology (2000)

JACK A. BOULANT

GRADUATE & PROFESSIONAL TEACHING (at Ohio State University):

- 1977 - 1978: Physiol. 601: Temp. Reg. lectures
 Physiol. 602: CNS lectures/labs
 Physiol. 861: Physiology of the Central Nervous System; Course Director
- 1978 - 1979: Physiol. 601/611: Reflexes, Transmitters, Temp. Reg.
 Physiol. 602/612: CNS lectures
- 1979 - 1980: Physiol. 911: Physiology of CNS; Course Director - 18 lectures
 Med I Physiol: Temp. Reg. lectures
- 1980 - 1981: Med I Physiol: Temp. Reg. lectures
 Physiol. 601: Temp. Reg. lectures
 Physiol. 602/612: CNS; Special Senses - lectures/labs
 Physiol. 911.16 (Control Systems): 1 lecture
- 1981 - 1982: Physiol. 601: Temp. Reg. lectures
 Physiol. 602/612: CNS; Special Senses - lectures/labs
 Med I Physiol: CNS, Special Senses, Temperature Reg. (22 x 60-minute lectures)
- 1982 - 1983: Physiol. 601: Temp. Reg. lectures
 Med I Physiol: CNS, Special Senses, Temperature Reg. (27 x 48-minute lectures)
- 1983 - 1984: Physiol 911.06: Physiology of Temperature Regulation; Course Director - all lectures
 Med I Physiol & Physiol 609: CNS, Special Senses, Temp. Reg. (30 x 48-minute lectures)
- 1984 - 1985: Med I Physiol & Physiol. 609: CNS, Special Senses, Temp. Reg. (34 x 48-minute lectures)
- 1985 - 1986: Med I Physiol & Physiol. 609: CNS, Special Senses, Temp. Reg. (34 x 48-minute lectures)
- 1986 - 1987: Physiol 850: Fever (10 x 2-hour classes); Course Director
 Med I Physiol & Physiol. 609: CNS, Somatosensory, Special Senses (12 x 48-minute lectures)
 Physiol 619 Physiology Laboratory (1 lab)
- 1987 - 1988: Med I Neuroscience: CNS, Somatosensory, Special Senses (14 x 48-minute lectures)
- 1988 - 1989: Med I Neuroscience: CNS, Somatosensory, Special Senses (15 x 48-minute lectures)
- 1989 - 1990: Med I Neuroscience: CNS, Motor, Somatosensory, Special Senses (17 x 48-minute lectures)
- 1990 - 1991: Med I Neuroscience: Sensory, Motor, Temp. Reg., Sleep & EEG (26 x 48-minute lectures)
- 1991 - 1992: Med I Neuroscience: Sensory, Higher Motor (16 x 48-minute lectures)
 Physiol. 911.26: Neuronal Networks
- 1992 - 1993: Med I Neuroscience: Sensory, Higher Motor (16 x 48-minute lectures)
- 1993 - 1994: Physiol. 911.06: Temperature Regulation (30 x 60-minute lectures; 5 graduate students)
 Neuroscience 797 Seminar Series (1 lecture)
 Med I Neuroscience: Sensory, Higher Motor (16 x 48-minute lectures)
- 1994 - 1995: Med I Neurosciences: Somatosensory, Vision, Auditory (16 x 48-minute lectures)
- 1995 - 1996: Med I Neurosciences: Somatosensory, Vision, Auditory (14 x 48-minute lectures)
 Physiol. 911.26: Neuronal Networks (1 lecture)

- 1996 - 1997: Med I Neurosciences: Somatosensory, Vision, Auditory (14 x 48-minute lectures)
Physiol. 850: Central Control of Body Temperature (10 x 120-minute classes)
- 1997 - 1998: Med I Neurosciences: Somatosensory, Vision, Auditory (14 x 48-minute lectures)
- 1998 - 1999: Med I Neurosciences: Somatosensory, Vision, Auditory (12 x 48-minute lectures)
Physiol. 911.26: Neurophysiology of Temperature Regulation (20 x 90-minute classes)
- 1999 - 2000: Med I Neurosciences: Somatosensory, Vision, Auditory,
and Temperature Regulation & Fever (12 x 48-minute lectures) – Winter/Spring 2000

JACK A. BOULANT

PUBLICATIONS

Book Chapters

- Boulant, J.A. 1977. A hypothalamic neuronal model for thermoregulation. Chapter 7, pp. 41-44. In: ***Selected Topics in Environmental Biology***, edited by B. Bhatia, G.S. Chhina and N. Singh. Oxford, England; Pergamon Press Ltd.
- Boulant, J.A. 1980. Hypothalamic control of thermoregulation: neurophysiological basis. Chapter 1, pp. 1-82. In: ***Handbook of the Hypothalamus***, Volume 3, Part A, ***Behavioral Studies of the Hypothalamus***, edited by P.J. Morgane and J. Panksepp. Marcel Dekker, New York.
- Boulant, J.A. and I.M. Scott. 1983. Effects of leukocytic pyrogens on hypothalamic neurons in tissue slices. pp. 125-127. In: ***Environment. Drugs and Thermoregulation***, edited by P. Lomax and E. Schonbaum. Karger, Basel.
- Boulant, J.A. and I.M. Scott. 1986. Comparison of prostaglandin E2 and leukocytic pyrogen on hypothalamic neurons in tissue slices. pp.78-80. In: ***Homeostasis and Thermal Stress***, edited by P. Lomax and E. Schonbaum. Karger, Basel.
- Boulant, J.A. and J.B. Dean. 1986. Temperature Receptors in the Central Nervous System. In: ***Annual Review of Physiology***, vol. 48, pp. 639-654, edited by R.M. Berne. Annual Reviews, Inc., Palo Alto, CA.
- Boulant, J.A., M.C. Curras and J.B. Dean. 1989. Neurophysiological Aspects of Thermoregulation. Chapter 4., pp. 117-160. In: ***Advances in Comparative and Environmental Physiology, Animal Adaptation to Cold*** edited by L.C.H. Wang. Springer-Verlag, New York.
- Curras, M.C. and J.A. Boulant. 1989. Thermal Effects on Spike Amplitudes of Intracellularly Recorded Neurons in Hypothalamic Tissue Slices. pp. 85-88. In: ***Thermal Physiology 1989***, edited by J.B. Mercer. Elsevier, Amsterdam.
- Boulant, J.A. 1991. Thermoregulation. pp. 1-22. In: ***Fever: Basic Mechanisms and Management***, edited by P.A. Mackowiak, Raven Press, New York.

JACK A. BOULANT

PUBLICATIONS

Book Chapters (continued)

- Boulant, J.A. 1994. Neurophysiology of Thermoregulation: Role of Hypothalamic Neuronal Networks. pp. 93-101. In: ***Temperature Regulation, Advances in Pharmacological Sciences***, edited by A.S. Milton, Birkhäuser Verlag AG, Basel.
- Derambure, P.S., J.B. Dean and J.A. Boulant. 1994. Circadian changes in neuronal thermosensitivity in the rat suprachiasmatic nucleus. pp. 269-274. In: ***Integrative and Cellular Aspects of Autonomic Functions: Temperature and Osmoregulation***, edited by K. Pleska and R. Gerstberger, John Libbey Eurotext Ltd., London.
- Boulant, J.A. 1994. Cellular and synaptic mechanisms of thermosensitivity in hypothalamic neurons. pp. 19-29. In: ***Thermal Balance in Health and Disease***, ed. E. Zeisberger, E. Schönbaum, P. Lomax. Birkhäuser Verlag AG, Basel.
- Boulant, J.A. 1995. Temperature sensitivity in hypothalamic neurones. pp. 1-6. ***Body Temperature and Metabolism***, ed. T. Nagasaka, A.S. Milton. IPEC (Internat. Press Ed. Ctr.), Tokyo.
- Boulant, J.A. 1996. Hypothalamic Neurons Controlling Body Temperature. pp. 105-126. In: ***Handbook of Physiology***. Section 4, ***Environmental Physiology***, edited by C.M. Blatteis & M.J. Fregly, Oxford University Press, Oxford.
- Boulant, J.A. 1997. Thermoregulation. pp. 35-58. In: ***Fever: Basic Mechanisms and Management***, (2nd edition) edited by P.A. Mackowiak, Lippincott-Raven Press, New York.
- Mackowiak, P.A. and Boulant, J.A. 1997. Fever's upper limit. pp. 147-166. In: ***Fever: Basic Mechanisms and Management***, (2nd edition) edited by P.A. Mackowiak, Lippincott-Raven Press, New York.
- Boulant, J.A., A.R. Chow and J.D. Griffin. 1997. Determinants of Hypothalamic Neuronal Thermosensitivity, pp. 133-138. In: ***Thermoregulation (Tenth International Symposium on the Pharmacology of Thermoregulation)***, edited by C.M. Blatteis, ***Annals of the New York Academy of Sciences*** (Vol. 813), New York.

JACK A. BOULANT

PUBLICATIONS

Book Chapters (continued)

- Boulant, J.A. 1997. Cellular mechanisms of temperature sensitivity in hypothalamic neurons, pp. 3-8. In: ***Brain Functions in a Hot Environment: Progress in Brain Research***, edited by H.S. Sharma, Elsevier, North Holland.
- Boulant, J.A. 1998. Neural thermal reception and regulation of body temperature, pp. 93-105. In: ***Physiology and Pathophysiology of Temperature Regulation***, edited by C.M. Blatteis, World Scientific Publishing Co, Singapore.
- Boulant, J.A. 1998. Hypothalamic neurons: mechanisms of sensitivity to temperature. pp. 108-115. In: ***Molecular Mechanisms of Fever: Annals of the New York Academy of Sciences***, (Vol. 856), edited by M.J. Kluger, T. Bartfai and C.A. Dinarello, NY Acad. Sci., New York.
- Boulant, J.A. 1999. Thermoregulatory hypothalamic neurons: mechanisms for adaptations and responses to thermal and non-thermal endogenous factors, pp. 263-271. In: ***Adaptation Biology and Medicine***, edited by K.B. Pandolf, N. Takeda and P.K. Singal, Narosa Publishing House, New Delhi.

JACK A. BOULANT

PUBLICATIONS

Major Papers

- Boulant, J.A. 1971. Time-dependent thermosensitive characteristics of preoptic and anterior hypothalamic neurons.
Ph.D. Thesis. University of Rochester School of Medicine.
- Boulant, J.A. and K.E. Bignall. 1973. Determinants of hypothalamic neuronal thermosensitivity in ground squirrels and rats.
***American Journal of Physiology* 225: 306-310.**
- Boulant, J.A. and K.E. Bignall. 1973. Changes in the thermosensitive characteristics of hypothalamic units over time.
***American Journal of Physiology* 225: 311-318.**
- Boulant, J.A. and K.E. Bignall. 1973. Hypothalamic neuronal responses to peripheral and deep-body temperatures.
***American Journal of Physiology* 225: 1371-1374.**
- Boulant, J.A. and J.D. Hardy. 1974. The effect of spinal and skin temperatures on the firing rate and local thermosensitivity of preoptic neurones.
***Journal of Physiology (London)* 240: 639-660.**
- Boulant, J.A. 1974. The effect of firing rate on the hypothalamic thermosensitivity of preoptic neurons.
***Journal of Physiology (London)* 240: 661-669.**
- Boulant, J.A. and R.R. Gonzalez. 1977. The effect of skin temperature on the hypothalamic control of heat loss and heat production.
***Brain Research* 120: 367-372.**
- Boulant, J.A. and H.N. Demieville. 1977. Responses of thermosensitive preoptic and septal neurons to hippocampal and brainstem stimulation.
***Journal of Neurophysiology* 40: 1356-1368.**
- Boulant, J.A. 1981. Hypothalamic mechanisms in thermoregulation.
***Federation Proceedings* 40: 2843-2850.**
- Nelson, D.O. and J.A. Boulant. 1981. Altered CNS neuroanatomical organization of spontaneous hypertensive (SHR) rats.
***Brain Research* 226: 119-130.**

JACK A. BOULANT

PUBLICATIONS

Major Papers (continued)

- Kelso, S.R., M.N. Perlmutter and J.A. Boulant. 1982. Thermosensitive single-unit activity of in vitro hypothalamic slices.
American Journal of Physiology 242: R77-R84.
- Kelso, S.R. and J.A. Boulant. 1982. Effect of synaptic blockade on thermosensitive neurons in hypothalamic tissue slices.
American Journal of Physiology 243: R480-R490.
- Kelso, S.R., D.O. Nelson, N.L. Silva and J.A. Boulant. 1983. A slice chamber for intracellular and extracellular recording during continuous perfusion.
Brain Research Bulletin 10: 853-857.
- Nelson, D.O. and J.A. Boulant. 1983. Altered brainstem structure of spontaneous hypertensive (SHR) rats.
Brain Research 261: 145-150.
- Silva, N.L., S.R. Kelso, M.A. Lessler and J.A. Boulant. 1983. Oxygen consumption of hypothalamic tissue slices after varying incubation periods.
Brain Research Bulletin 11: 367-370.
- Scott, I.M. and J.A. Boulant. 1984. Dopamine effects on thermosensitive neurons in hypothalamic tissue slices.
Brain Research 306: 157-163.
- Silva, N.L. and J.A. Boulant. 1984. Effects of osmotic pressure, glucose and temperature on neurons in preoptic tissue slices.
American Journal of Physiology 247: R335-R345.
- Silva, N.L. and J.A. Boulant. 1986. Effects of testosterone, estradiol and temperature on neurons in preoptic tissue slices.
American Journal of Physiology 250: R625-R632.
- Boulant, J.A. 1986. Single neuron studies and their usefulness in understanding thermoregulation.
Yale Journal of Biology and Medicine 59: 179-188.
- Boulant, J.A. and N.L. Silva. 1987. Interactions of reproductive steroids, osmotic pressure and glucose on thermosensitive neurons in preoptic tissue slices.
Canadian Journal of Physiology & Pharmacology 65: 1267-1273.

JACK A. BOULANT

PUBLICATIONS

Major Papers (continued)

- Scott, I.M., R.H. Fertel and J.A. Boulant. 1987. Leukocytic pyrogen effects on prostaglandins in hypothalamic tissue slices.
American Journal of Physiology 253: R71-R75.
- Dean, J.B. and J.A. Boulant. 1988. A diencephalic slice preparation and chamber for studying neuronal thermosensitivity.
Journal of Neuroscience Methods 23:225-232.
- Boulant, J.A. and N.L. Silva. 1988. Neuronal sensitivities in preoptic tissue slices: interactions among homeostatic systems.
Brain Research Bulletin 20:871-878.
- Travis, K.T. and J.A. Boulant. 1989. In vitro diencephalic neuronal thermosensitivity in normotensive and hypertensive rats.
American Journal of Physiology 256:R560-R566.
- Curras, M.C. and J.A. Boulant. 1989. Effects of ouabain on neuronal thermosensitivity in hypothalamic tissue slices.
American Journal of Physiology 257:R21-R28.
- Dean, J.B. and J.A. Boulant. 1989. In vitro localization of thermosensitive neurons in the rat diencephalon.
American Journal of Physiology 257: R57-R64.
- Dean, J.B. and J.A. Boulant. 1989. Effects of synaptic blockade on thermosensitive neurons in rat diencephalon in vitro.
American Journal of Physiology 257: R65-R73.
- Boulant, J.A. and N.L. Silva. 1989. Multisensory homeostatic neurons may explain interactions among regulatory systems. (Invited paper).
News in Physiological Sciences 4:245-248.
- Boulant, J.A. 1989. Hypothalamic neurons showing delayed responses to temperature.
J. Univ. Occup. Environ. Health. 11:112-113.
- Curras, M.C., M.A. Lessler and J.A. Boulant. 1990. Ouabain stimulation of oxygen consumption in hypothalamic tissue slices.
Pharmacology (Life Science Advances) 9:381-384.

JACK A. BOULANT

PUBLICATIONS

Major Papers (continued)

Travis, K.T. and J.A. Boulant. 1990. In vitro osmosensitive hypothalamic neurons from normotensive and hypertensive rats.

American Journal of Physiology 258:R175-R181.

Curras, M.C., S.R. Kelso and J.A. Boulant. 1991. Intracellular analysis of inherent and synaptic activity in hypothalamic thermosensitive neurons.

Journal of Physiology (London) 440:257-271.

Dean, J.B., M.L. Kaple and J.A. Boulant. 1992. Regional interactions between thermosensitive neurons in diencephalic slices.

American Journal of Physiology 263:R670-R678.

Dean, J.B. and J.A. Boulant. 1992. Delayed-firing rate responses to temperature in diencephalic slices.

American Journal of Physiology 263:R679-R684.

Boulant, J.A. 1992. Properties of hypothalamic temperature sensitive and insensitive neurones.

Physiological Research 41:83-84.

Derambure, P.S. and J.A. Boulant. 1994. Circadian thermosensitive characteristics of suprachiasmatic neurons in vitro.

American Journal of Physiology 266:R1876-R1884.

Griffin, J.D. and J.A. Boulant. 1995. Temperature effects on membrane potential and input resistance in rat hypothalamic neurones.

Journal of Physiology (London) 488:407-418.

Griffin, J.D., M.L. Kaple, A.R. Chow and J.A. Boulant. 1996. Cellular mechanisms for neuronal thermosensitivity in the rat hypothalamus.

Journal of Physiology (London) 492:231-242.

Mackowiak, P.A. and J.A. Boulant. 1996. Fever's glass ceiling.

Clinical Infectious Diseases 22:525-536.

Derambure, P. and J.A. Boulant. 1996. Propriétés membranaires des neurones des noyaux suprachiasmatiques et de l'aire préoptique de l'hypothalamus effet de la température.

Archives of Physiology & Biochemistry 104 (4):D54-D57.

JACK A. BOULANT

PUBLICATIONS

Major Papers (continued)

Burgoon, P.W., R.W. Burry and J.A. Boulant. 1997. Neuronal thermosensitivity and survival of rat hypothalamic slices in recording chambers. ***Brain Research***. 777:31-41.

Burgoon, P.W. and J.A. Boulant. 1998. Synaptic inhibition: its role in suprachiasmatic nucleus neuronal thermosensitivity and temperature compensation. ***Journal of Physiology (London)*** 512:793-807.

Boulant, J.A. 1999. Cellular mechanisms of neuronal thermosensitivity. ***Journal of Thermal Biology*** 24:333-338.

Boulant. 2000. Role of the preoptic-anterior hypothalamus in thermoregulation and fever. ***Clinical Infectious Diseases*** (accepted).

Manuscripts currently in preparation :

Burgoon, P.W. and J.A. Boulant. Temperature sensitive properties of rat suprachiasmatic nucleus neurons.

Griffin, J.D., C.B. Saper and J.A. Boulant. Synaptic and morphological characteristics of temperature sensitive and insensitive hypothalamic neurons.

Chow, A.R., M.L. Kaple, J.D. Griffin and J.A. Boulant. Cyclic AMP affects the thermosensitivity of rat hypothalamic neurons.

JACK A. BOULANT

Abstracts:

- Boulant, J.A. and K.E. Bignall. 1971. Time-dependent characteristics of hypothalamic temperature-sensitive neurons. Fed. Proc. 30(2): 319.
- Boulant, J.A. and J.D. Hardy. 1972. Hypothalamic and medullary neuronal responses to deep-body, peripheral and local temperatures Internat. J. Biometeorology 16 (Suppl.): 38-39.
- Boulant, J.A. and J.D. Hardy. 1973. The effect of spinal and skin temperatures on preoptic neuronal thermosensitivity. Fed. Proc. 32(3): 407.
- Boulant, J.A. 1973. The effect of firing rate on the local thermosensitivity of preoptic neurons. The Physiologist 16(3): 271.
- Boulant, J.A. and R.R. Gonzalez. 1974. The effect of extrahypothalamic temperature on preoptic control of thermoregulation. Fed. Proc. 33(3): 457.
- Boulant, J.A. and H.N. Demieville. 1975. The effect of electrical stimulation on the firing rate and thermosensitivity of preoptic and septal neurons. The Physiologist 18(3): 147.
- Boulant, J.A. 1976. Distribution of hippocampal inputs to specific preoptic and septal neurons. Fed. Proc. 35(3): 530.
- Boulant, J.A., S.R. Kelso and M.N. Perlmutter. 1980. The effect of synaptic input on hypothalamic neurons in tissue slices. Proc. Internat. Union Physiol. Sci. 14: 335.
- Kelso, S.R., M.N. Perlmutter and J.A. Boulant. 1980. Removal of synaptic input alters the thermosensitivity of preoptic neurons in tissue slices. The Physiologist. 23: 12.
- Kelso, S.R., M.N. Perlmutter and J.A. Boulant. 1980. Temperature sensitive neurons in hypothalamic tissue slices. Fed. Proc. 38: 989.
- Scott, I.M., M.M. Toner and J.A. Boulant. 1980. The effect of passive limb movement on hypothalamic - evoked thermoregulatory responses in rabbits. Soc. Neurosci. Absts. 6: 70.
- Perlmutter, M.N., D.O. Nelson and J.A. Boulant. 1981. Intracellular recordings of preoptic thermosensitive neurons in the rat Fed. Proc. 40(3): 517.
- Scott, I.M. and J.A. Boulant. 1981. Thyroid hormone and dopamine: effects on thermosensitive neurons in hypothalamic tissue slices. Fed. Proc. 40(3): 517.
- Kelso, S.R., M.A. Lessler and J.A. Boulant. 1981. Oxygen consumption of hypothalamic tissue slices after varying incubation periods. Soc. Neurosci. Absts. 7: 595.
- Nelson, D.O. and J.A. Boulant. 1982. Altered brain structure on spontaneously hypertensive (SHR) rats. Fed. Proc. 41(5): 1655.
- Scott, I.M. and J.A. Boulant. 1982. Leukocytic pyrogen: effects on thermosensitive neurons in hypothalamic tissue slices. Fed. Proc. 41(5): 1349.
- Silva, N.L. and J.A. Boulant. 1982. Effects of glucose and osmotic pressure on temperature-sensitive neurons in hypothalamic tissue slices. Soc. Neurosci. Absts. 8(1): 79.
- Reveley, J.W. and J.A. Boulant. 1982. Development of temperaturesensitive neurons within the preoptic area and anterior hypothalamus of domestic chick embryos and hatchlings. Soc. Neurosci. Absts. 8(1): 190.
- Perlmutter, M.N. and J.A. Boulant. 1983. Intracellular recordings from temperature-sensitive septal and hypothalamic neurons. Soc. Neurosci. Absts. 9: 519.
- Silva, N.L. and J.A. Boulant. 1983. Testosterone and estrogen effects on thermosensitive neurons in hypothalamic tissue slices. Soc. Neurosci. Absts. 9: 112.
- Scott, I.M. and J.A. Boulant. 1984. Leukocytic pyrogen and prostaglandin effects on in vitro preoptic neurons. Fed. Proc. 43: 909.
- Dean, J.B. and J.A. Boulant. 1985. Localization of diencephalic thermosensitive neurons in tissue slices. Fed. Proc. 44: 1194.
- Dean, J.B. and J.A. Boulant. 1985. The effects of synaptic blockade on temperature-sensitive neurons throughout the entire hypothalamus. Soc. Neurosci. Absts. 11: 1236.
- Boulant, J.A. and J.B. Dean. 1985. Local synaptic networks involved in neuronal thermosensitivity in hypothalamic tissue slices. J. Physiol. London 371: 279P.

Curras, M.C., J.B. Dean and J.A. Boulant. 1986. Effects of ouabain on neuronal thermosensitivity in hypothalamic tissue slices. Fed. Proc. 45: 406.

Curras, M.C., J.B. Dean and J.A. Boulant. 1986. Effects of ouabain on neuronal thermosensitivity in hypothalamic tissue slices. Proc. Conference on Brain Slices, Louisville, KY, 4-6 June 1986.

JACK A. BOULANT

Abstracts:

- Dean, J.B. and J.A. Boulant. 1986. Regional interactions between thermosensitive neurons in hypothalamic tissue slices. Proc. IUPS Satellite Symposium on Thermal Physiology, Calgary, Alberta, Canada, 21-25 July 1986, p. 73.
- Dean, J.B. and J.A. Boulant. 1986. Hypothalamic temperature-sensitive neurons and their regional interactions in horizontal tissue slices. Soc. Neurosci. Absts. 12:1527.
- Dean, J.B. and J.A. Boulant. 1987. Delayed neuronal responses to thermal stimulation in hypothalamic tissue slices. Fed. Proc. 46:323.
- Boulant, J.A. and Dean, J.B. 1987. Reception and integration of thermal information in horizontal tissue slices. Proc. IBRO Satellite Symposium on Selected Topics in Hypothalamic Research, Budapest, Hungary, 12-14 August 1987, p. 34.
- Curras, M.C., S.R. Kelso and J.A. Boulant. 1987. Intracellular recordings of thermosensitive neurons in rat hypothalamic tissue slices. Soc. Neurosci. Absts. 13:1167.
- Travis, K.A. and J.A. Boulant. 1988. Characteristics of thermosensitive hypothalamic neurons from hypertensive and normotensive rats. FASEB Journal 2:A746.
- Scott, I.M., J. Travers, R.H. Fertel and J.A. Boulant. 1988. Effects of platelet activating factor on thermosensitive neurons in hypothalamic tissue slices. FASEB Journal 2:A746.
- Curras, M.C., S.R. Kelso & J.A. Boulant. 1988. Intracellular recordings of preoptic temperature sensitive and insensitive neurons. FASEB Journal 2:A746.
- Travis, K.A. and J.A. Boulant. 1988. Characteristics of thermosensitive and osmosensitive neurons in the rat diencephalon. Soc. Neurosci. Absts. 14:1179.
- Boulant, J.A. and M.C. Curras. 1989. Intracellular analysis of inherent and synaptic activity in hypothalamic thermosensitive neurons. p.4. Proc. IUPS Thermal Physiology Satellite Symposium Tromso, Norway.
- Curras M.C. and J.A. Boulant. 1989. Intracellular analysis of inherent and synaptic activity in hypothalamic thermosensitive neurons. Soc. Neurosci. Absts. 15:1090.
- Boulant, J.A. 1989. Hypothalamic neurons showing delayed responses to temperature. J. UOEH. 11:112-113.
- Griffin, J.D., M.L. Kaple and J.A. Boulant. 1990. Cyclic AMP: a determinant of hypothalamic neuronal thermosensitivity. FASEB Journal 4:A720.
- Griffin, J.D., M.L. Kaple and J.A. Boulant. 1990. Hypothalamic regional differences in neuronal responses to temperature and cyclic AMP. Soc. Neurosci. Absts. 16:574.
- Kaple, M.L. and J.A. Boulant. 1991. Osmotically sensitive and sodium sensitive neurons in hypothalamic tissue slices. FASEB Journal 5:A678.
- Griffin, J.D. and J.A. Boulant. 1991. Physiological and morphological characteristics of hypothalamic temperature sensitive neurons. FASEB Journal 5:A1400.
- Griffin, J.D. and J.A. Boulant. 1991. Thermosensitive characteristics of hypothalamic neurons determined by whole-cell recording. Soc. Neurosci. Absts. 17:835.
- Boulant, J.A. 1991. Properties of hypothalamic temperature sensitive and insensitive neurons. Absts. Regional Meeting of IUPS (Prague) p. 167.
- Derambure, P.S. and J.A. Boulant. 1992. Temperature sensitivity of suprachiasmatic neurons in rat hypothalamic tissue slices. FASEB Journal 6:A1198.
- Griffin, J.D. and J.A. Boulant. 1992. Hypothalamic warm sensitive neurons: role of the temperature dependent pacemaker potential. FASEB Journal 6:A1198.
- Derambure, P. and J.A. Boulant. 1992. Etude in vitro de la thermosensibilité des neurones des noyaux suprachiasmatiques. [60^e Réunion Association des Physiologistes, Nice, France.] Archives Internationales de Physiologie, Biochimie et Biophysique 100:A80
- Derambure, P.S. and J.A. Boulant. 1992. Circadian rhythm of neuronal temperature sensitivity in rat suprachiasmatic nucleus. Soc. Neurosci. Absts. 18:490.
- Griffin, J.D. and J.A. Boulant. 1992. Synaptic interactions of hypothalamic temperature sensitive and insensitive neurons. Soc. Neurosci. Absts. 18:877.

Griffin, J.D., P. Wung Burgoon and J.A. Boulant. 1993. Neuronal thermosensitivity does not depend on thermal changes in resting membrane potential. FASEB Journal 7:A17..

Derambure, P.S. and J.A. Boulant. 1993. Temperature sensitivity of suprachiasmatic neurons in rat hypothalamic tissue slices. Sleep Research 22:617.

JACK A. BOULANT

Abstracts:

- Boulant, J.A. and J.D. Griffin. 1993. Determinants of thermosensitivity in hypothalamic neurons. page 9, In: Thermal Physiology 1993, Absts of the Proceedings of the IUPS Thermal Physiology Commission Symposium, edited by A.S. Milton, Univ. of Aberdeen, Scotland.
- Derambure, P.S., P.W. Burgoon and J.A. Boulant. 1993. In vitro thermosensitive characteristics of neurons in the rat suprachiasmatic nucleus. Soc. Neurosci. Absts 19:570.
- Boulant, J.A. and P.S. Derambure. 1993. Circadian changes in neuronal thermosensitivity in the rat suprachiasmatic nucleus. Absts. of the International Symposium on Integrative and Cellular Aspects of Autonomic Functions: Temperature- and Osmoregulation. [page 11] (Bad Nauheim, Germany, July 29-30, 1993)
- Griffin, J.D. and J.A. Boulant. 1993. Mechanisms of hypothalamic neuronal warm sensitivity. Soc. Neurosci. Absts 19:99.
- Derambure, P., J.D. Guieu, P. Poulain and J.A. Boulant. 1994. Etude de la rythmicité circadienne de l'activité des neurones thermosensibles des noyaux suprachiasmatic chez le rat. Abst. Congrès Annuel de la Société Française de recherche sur le Sommeil (Lille), p. 9.
- Boulant, J.A. 1994. Cellular and synaptic mechanisms of thermosensitivity in hypothalamic neurons. Abstracts for the Ninth International Symp. on the Pharmacology of Thermoregulation - Giessen 1994, p. 6.
- Boulant, J.A. 1995. Temperature sensitivity in hypothalamic neurons. *Jap. J. Physiol.* 45 (Suppl 2): S348. *Joint Meeting of Physiol. Societies of Japan, U.K. & Eire: Integrative Mechanism of Physiol. Function (Body Temperature & Metabolism (Nagoya)*
- Chow, A.R. and J.A. Boulant. 1995. Modulatory role of cyclic AMP in rat hypothalamic neuronal thermosensitivity. *Soc. Neurosci. Absts.* 21:879.
- Derambure, P., J.A. Boulant, I. Niespodziany, P. Poulain & J.D. Guieu. 1995. Effet de la température sur les propriétés électrophysiologique des neurones des noyaux suprachiasmatic du rat: étude par enregistrement en patch-clamp mode cellule entérée. *Abst. Soc. Neurosci. (Lyon)*, p. 126.
- Burgoon, P.W. and J.A. Boulant. 1996. Synaptic inhibition and hypothalamic neuronal thermosensitivity. *FASEB Journal* 10:A113.
- Burgoon, P.W. and J.A. Boulant. 1996. Temperature sensitive hypothalamic neurons: thermal effects on GABA_A synaptic inhibition. *Soc. Neurosci. Absts.* 22:622.
- Boulant, J.A. 1997. Role of hypothalamic neuronal networks in thermoregulation. *J. Physiol. Biochem (Revista espanola de Fisiologia)* 51(1):31.
- Chow, A.R. and J.A. Boulant. 1997. Cyclic AMP effects on temperature sensitivity in rat hypothalamic neurons. *FASEB Journal* 11:A87.
- Kaple, M.L. and J.A. Boulant. 1997. Effects of temperature and reproductive endocrines on rat hypothalamic neurons. *Soc. Neurosci. Absts.* 23:138.
- Burgoon, P.W., P.S. Derambure and J.A. Boulant. 1997. Thermosensitive membrane properties of neurons in the rat suprachiasmatic nucleus. *Soc. Neurosci. Absts.* 23:138.
- Boulant, J.A. and A.R. Chow. 1998. Mechanisms of temperature sensitivity in rat hypothalamic neurons. *FASEB Journal* 12: A120.
- Wallace, H.L., L.I. Crawshaw, J.C. Crabbe and J.A. Boulant. 1998. Temperature regulation in HOT and COLD mice following acute and chronic ethanol administration. *Soc. Neurosci. Absts.* 24:1241.
- Boulant, J.A. 1998. Hypothalamic thermoregulatory neurons: responses and adaptations to temperature. *Absts. 1998 Internat. Symp. On Human Biometeorology, Fuji-Yoshida, Yamanashi, Japan*, p.15.
- Burgoon, P.W. and J.A. Boulant. 1999. Synaptic inhibition's role in hypothalamic neuronal thermosensitivity and temperature compensation. *FASEB Journal* 13:A742.
- Boulant, J.A. 1999. Cellular mechanisms of neuronal thermosensitivity. *Absts. XI Internat. Symp. Pharmacology of Thermoregulation, Seville, Spain.*

- Zhao, Y and J.A. Boulant. 2000. Temperature effects on resting membrane potential and ionic current in rat hypothalamic neurons. *FASEB Journal* 14:A321.
- Zhao, Y and J.A. Boulant. 2000. Thermal effects on persistent currents and resting potentials in rat hypothalamic neurons. *Soc. Neurosci. Absts.* 26:xxx.

JACK A. BOULANT

INVITED PRESENTATIONS AND PAPERS DELIVERED AT INTERNATIONAL MEETINGS & SEMINARS

Boulant, J.A. and J.D. Hardy. Hypothalamic and medullary neuronal responses to deep-body, peripheral and local temperatures. VI International Biometeorological Congress. **Noordwijk, The Netherlands**, 3-9 September 1972.

Boulant, J.A. (in conjunction with T. Nakayama, Japan). A hypothalamic model for thermoregulation. Symposium on Neurophysiology of Temperature Regulation. XXVI International Congress of Physiological Sciences. **New Delhi, India**, 20-26 October 1974.

Boulant, J.A. Hypothalamic mechanisms in thermoregulation. FASEB Symposium on the Neurophysiology of Temperature Regulation. **Chicago, Illinois**, 3 April 1977.

Boulant, J.A. Unit studies in relation to thermoregulation. Symposium on the Electrophysiology of the Hypothalamus. **Cambridge, England**, 24-27 July 1977.

Boulant, J.A., S.R. Kelso and M.N. Perlmutter. The effect of synaptic input on hypothalamic thermosensitive neurons in tissue slices. XXVIII International Congress of Physiological Sciences. **Budapest, Hungary**, 13-19 July 1980.

Boulant, J.A. and I.M. Scott. Effect of leukocytic pyrogen on hypothalamic neurons in tissue slices. Fifth International Symposium on Pharmacology of Thermoregulation. **Saint Paul, France**, 1-6 November 1982.

Boulant, J.A. **APS Tutorial Lecture**: Hypothalamic control of body temperature. 34th Annual Meeting of the American Physiological Society. **Honolulu, Hawaii**, 20-24 August 1983.

Boulant, J.A. Are single unit studies useful in the study of temperature regulation? International Symposium to Debate Current Issues in Thermal Physiology. Yale University, **New Haven, Conn.**, 23-27 June 1985.

Boulant, J.A. and I.M. Scott. Comparison of prostaglandin E2 and leukocytic pyrogen on hypothalamic neurons in tissue slices. Sixth International Symposium on Pharmacology of Thermoregulation. **Jasper National Park, Alberta, Canada**, 25-31 August 1985.

JACK A. BOULANT

INVITED PRESENTATIONS AND PAPERS

DELIVERED AT INTERNATIONAL MEETINGS & SEMINARS (continued)

Boulant, J.A. and J.B. Dean. Local synaptic networks involved in neuronal thermosensitivity in hypothalamic tissue slices. Joint Meeting of the U.S.-British Physiological Societies. **Cambridge, England**, 12-14 September 1985.

Boulant, J.A. and J.B. Dean. Regional interactions between thermosensitive neurons in hypothalamic tissue slices. IUPS Satellite Symposium on Thermal Physiology. **Calgary, Alberta, Canada**, 21-25 July 1986.

Boulant, J.A. Reception and integration of thermal information in hypothalamic tissue slices. Selected Topics in Hypothalamic Research. Satellite Symposium to the Second World Congress of the International Brain Research Organization. **Budapest, Hungary**, 12-14 August 1987.

Boulant, J.A. "Intracellular studies of hypothalamic thermosensitive neurons" Dept. of Physiology, Saga Medical School, **Saga, Japan**. 12 July 1988.

Boulant, J.A. "Hypothalamic neurons involved in thermoregulation and homeostasis" to:

- a. Neuroscience Club, Saga Medical School, **Saga, Japan**. July 6, 1988.
- b. Dept. of Environmental Physiology, Institute of Tropical Medicine, Nagasaki University, **Nagasaki, Japan**. July 7, 1988.
- c. Dept. of Physiology, Yamaguchi University, School of Medicine, **Ube, Japan**. July 15, 1988.
- d. Neuroscience Club, Osaka University, School of Medicine, **Osaka, Japan**. July 18, 1988.
- e. Neuroscience Club, Kanazawa University, School of Medicine, **Kanazawa, Japan**. July 20, 1988.
- f. Dept. of Physiology, Kyoto Prefecture Medical College, **Kyoto, Japan**. July 22, 1988.
- g. Department of Physiology, Yamanashi Medical College, **Yamanashi, Japan**. July 27, 1988.

JACK A. BOULANT

INVITED PRESENTATIONS AND PAPERS

DELIVERED AT INTERNATIONAL MEETINGS & SEMINARS (continued)

- Boulant, J.A. The hypothalamus: a slice of life.
FASEB Temperature Regulation Group Dinner
Las Vegas, Nevada, 1-5 May 1988.
- Boulant, J.A. Hypothalamic neurons showing delayed responses to temperature.
International Workshop on Environmental Influences on Water Balance:
Basic Physiology on the Control of Neurohypophysial Hormones. University
of Occupational and Environmental Health, **Yamaguchi, Japan**, 25 July 1988.
- Boulant, J.A. Neurophysiology of thermoregulation.
American Society of Extracorporeal Technology, Basic Science Review Course,
Ohio State University, **Columbus, Ohio**, 11-12 February 1989.
- Boulant, J.A. and M.C. Curras. Intracellular analysis of inherent and synaptic activity
in hypothalamic thermosensitive neurons.
IUPS Satellite Symposium on Thermal Physiology
Tromso, Norway, July 17, 1989.
- Boulant, J.A. Osmotic and thermal interactions in hypothalamic neurons.
1990 FASEB Symposium on Singular and Interactive Effects of Blood Tonicity and
Volume in Dehydration. **Washington, D.C.**, April 1-6, 1990.
- Boulant, J.A. Properties of hypothalamic temperature sensitive and insensitive neurons.
Invited Symposium (Round-table Discussion): The Regulatory Neuron in the
Hypothalamus: an In Vitro Approach. International Union of Physiological
Sciences Regional Meeting **Prague, Czechoslovakia**, July 1-5, 1991 [7/3/91].
- Boulant, J.A. "Hypothalamic circuitry and neuronal transmission
relevant to the adjustment of body temperature."
Max-Planck Institute for Physiological and Clinical Science,
Bad Nauheim, Germany, July 12, 1991.
- Boulant, J.A. Reception and integration of thermal information in hypothalamic
neurons. International Conference in the Cellular Consequences of Sleep. World
Federation of Sleep Research Societies. **Maui, Hawaii**, March 14, 1993
- Boulant, J.A. and P.S. Derambure. Circadian changes in neuronal thermosensitivity in rat
suprachiasmatic nucleus. International Symposium on the Integrative & Cellular
Aspects of Autonomic Functions: Temperature- and Osmoregulation.
Bad Nauheim, Germany, July 29-30, 1993.

JACK A. BOULANT

INVITED PRESENTATIONS AND PAPERS

DELIVERED AT INTERNATIONAL MEETINGS & SEMINARS (continued)

- Boulant, J.A. Neurophysiology of thermoregulation: Role of hypothalamic neuronal networks. IUPS Thermal Physiology Commission Symposium. **Aberdeen, Scotland**, August 9-13, 1993.
- Boulant, J.A. Symposium Address: "Cellular & synaptic mechanisms of thermosensitivity in hypothalamic neurons" presented at Pharmacology of Thermoregulation International Symposium. 7-12 August 1994. **Giessen, Germany**.
- Boulant, J.A. Symposium Address: "Temperature sensitivity in hypothalamic neurones" presented at Nagoya Symposium on Integrative Mechanisms of Physiological Function: From Ion Channel to System, 2nd Joint Meeting of the Physiological Societies of Japan and UK & Eire, April 1-2, 1995, **Nagoya, Japan**.
- Boulant, J.A. Tutorial Lecture: "Environmental & circadian influences on hypothalamic thermosensitive neurons" presented at Annual Meeting of the American College of Sports Medicine. **Cincinnati, Ohio**, 30 May 1996.
- Boulant, J.A. Symposium Speaker: "Influence of reproductive hormones on hypothalamic thermosensitive neurons" presented in the Symposium on "*Thermoregulation & Reproductive Hormones: from Cells to Performance*" at Annual Meeting of the American College of Sports Medicine. **Cincinnati, Ohio**, 1 June 1996.
- Boulant, J.A. "Determinants of hypothalamic neuronal thermosensitivity" presented at Pharmacology of Thermoregulation International Symposium. 18-22 August 1996. **Memphis, TN, USA**.
- Boulant, J.A. Symposium Speaker: "Role of hypothalamic neuronal networks in thermoregulation" presented in the Symposium on "*Body-Brain Temperature: New Perspectives*" at the International Joint Meeting of the American & Spanish Physiology Societies, 4-7 February, 1997, **Malaga, Costa del Sol, Spain**.
- Boulant, J.A. Symposium Speaker: "Historical aspects of the central control of body temperature" presented in the Symposium on Milestones in Thermal Physiology, Experimental Biology '97, **New Orleans, LA**, April 6-9, 1997.
- Boulant, J.A. Symposium Speaker: "Hypothalamic neurons: mechanisms of sensitivity to temperature" presented in the Symposium on *Molecular Mechanisms of Fever*, **Santa Fe, NM**, November 2-4, 1997.

JACK A. BOULANT

INVITED PRESENTATIONS AND PAPERS

DELIVERED AT INTERNATIONAL MEETINGS & SEMINARS (continued)

- Boulant, J.A. Symposium Speaker and Co-Chairman: "Cellular Mechanisms in Thermal Regulation" *XXXIII International Congress of Physiological Sciences, St. Petersburg, Russia*, June 30-July 5, 1997.
- Boulant, J.A. Symposium Speaker: "Factors influencing hypothalamic neurons controlling body temperature" in Maladaptation to Exercise-Heat Exposure Symposium: *5th World Congress of the International Society for Adaptive Medicine, Framingham, MA (USA)*, September 7-10, 1997
- Boulant, J.A. Symposium Speaker: "Hypothalamic thermoregulatory neurons: responses and adaptations to temperature" in Mechanisms of Adaptation to Environmental Changes: *International Symposium on Human Biometeorology, Yamanashi Institute of Environmental Sciences, Fuji-Yoshida, Yamanashi, Japan*, 31 August - 2 September, 1998.
- Boulant, J.A. Symposium Speaker: "Cellular mechanisms of neuronal thermosensitivity" in Sesson: Neural Control of Thermoregulation in *International Symposium on the Pharmacology of Thermoregulation, Seville, Spain*, 10 May 1999.
- Boulant, J.A. Workshop Speaker: "Modern techniques in electrophysiology" in Workshop on Techniques in Thermoregulation Research in *International Symposium on the Pharmacology of Thermoregulation, Seville, Spain*, 10 May 1999.
- Boulant, J.A. Symposium Speaker: "The hypothalamus as the thermoregulatory center" in *Antipyretic Therapy Symposium,, Parson Island, Maryland*, 25-28 August 1999.

JACK A. BOULANT

DEPARTMENTAL SEMINARS: (since 1977)

Boulant, J.A. "Hypothalamic thermosensitive neurons: a further look at afferent inputs." John B. Pierce Foundation, Yale University School of Medicine, New Haven, Conn., 21 November 1977.

Boulant, J.A. "The hypothalamus and thermoregulation." Dept. of Anatomy, Ohio State University, Columbus, Ohio. 19 May 1978.

Boulant, J.A. "Hypothalamic control of body temperature." Dept. of Physiology, Indiana University, Bloomington, Indiana. 5 February 1980.

Boulant, J.A. "Hypothalamic control of body temperature." Dept. of Physiology, Ohio State University, Columbus, Ohio. 23 April 1980.

Boulant, J.A. "The neural control of thermoregulation." Div. Medical Physiology, University of Calgary, Alberta, Canada. 23-25 June 1980.

Boulant, J.A. "Hypothalamic control of body temperature." Neural and Behavioral Biology Program, University of Illinois, Champaign-Urbana, Illinois. 25-26 November 1980.

Boulant, J.A. "Neural mechanisms in thermoregulation." Physiology Dept., Northwestern Univ. Medical School, Chicago, Ill. 12 May 1982.

Boulant, J.A. "Neural mechanisms in thermoregulation." Sch. Life & Health Sci., Univ. of Delaware, Newark, Delaware. 25 March 1983.

Boulant, J.A. "Neural mechanisms in temperature regulation." Dept. of Biol. Sci. Central Michigan University, Mount Pleasant, Michigan. 12 October 1983.

Boulant, J.A. "Hypothalamic control of body temperature." Dept. of Physiology, University of Iowa. 27 March 1984.

Boulant, J.A. "Hypothalamic tissue slices: studies in thermoregulation & fever." Dept. of Pharmacology, Ohio State University. 15 February 1985.

Boulant, J.A. "Neuronal sensitivities in hypothalamic tissue slices." Dept. of Physiology and Biophysics, University of Tennessee. 21 January 1986.

Boulant, J.A. "Neural control of body temperature and its relationship with other regulatory systems." Department of Anatomy, Ohio State University. 28 February 1986.

Boulant, J.A. "Neuronal sensitivities in hypothalamic tissue slices." Dept. of Physiology and Biophysics, Hahnemann Univ. School of Medicine, Philadelphia, PA. 9 September 1986.

JACK A. BOULANT

DEPARTMENTAL SEMINARS (continued):

- Boulant, J.A. "Effects of osmotic pressure, glucose and reproductive steroids on hypothalamic thermosensitive neurons." U.S. Army Research Institute of Environmental Medicine, Natick, MA. 26 March 1987.
- Boulant, J.A. "Intracellular studies of hypothalamic thermosensitive neurons" Dept. of Physiology, Saga Medical School, Saga, Japan. 12 July 1988.
- Boulant, J.A. "Hypothalamic neurons involved in thermoregulation and homeostasis" to:
- a. Neuroscience Club, Saga Medical School, Saga, Japan. July 6, 1988.
 - b. Dept. of Environmental Physiology, Institute of Tropical Medicine, Nagasaki University, Nagasaki, Japan. July 7, 1988.
 - c. Dept. of Physiology, Yamaguchi University, School of Medicine, Ube, Japan. July 15, 1988.
 - d. Neuroscience Club, Osaka University, School of Medicine, Osaka, Japan. July 18, 1988.
 - e. Neuroscience Club, Kanazawa University, School of Medicine, Kanazawa, Japan. July 20, 1988.
 - f. Dept. of Physiology, Kyoto Prefecture Medical College, Kyoto, Japan. July 22, 1988.
 - g. Department of Physiology, Yamanashi Medical College, Yamanashi, Japan. July 27, 1988.
- Boulant, J.A. "Hypothalamic neurons & temperature regulation." Department of Biological Sciences, University of Illinois at Chicago. 2 February 1989.
- Boulant, J.A. "Hypothalamic neurons involved in thermoregulation and homeostasis." Tampa Bay Chapter of the Society for Neuroscience and Department of Anatomy, University of South Florida. 25 January 1990.
- Boulant, J.A. "Hypothalamic neurons involved in temperature regulation and other homeostatic responses." Neuroscience Program, Michigan State University, 7 February 1991
- Boulant, J.A. "Hypothalamic circuitry and neuronal transmission relevant to the adjustment of body temperature." Max-Planck Institute for Physiological and Clinical Science, Bad Nauheim, Germany, July 12, 1991.

JACK A. BOULANT

DEPARTMENTAL SEMINARS (continued):

- Boulant, J.A. "Neural control of temperature regulation." Joint Meeting of Ohio State University, Dept. of Physiology and Cleveland Clinic Foundation, Brain & Vascular Research Division. Mohican State Park Lodge, Ohio. December 12-13, 1991.
- Boulant, J.A. "Temperature sensitivity in hypothalamic neurons" Department of Physiology, Wright State University, Dayton, Ohio. February 10, 1994.
- Boulant, J.A. "Hypothalamic neurons involved in thermoregulation and other homeostatic systems" Department of Physiology, School of Medicine, Southern Illinois University, Carbondale, Illinois. December 1994.
- Boulant, J.A. "Thermosensitive neurons in the preoptic area and suprachiasmatic nucleus of the hypothalamus" Dept. of Applied Biology, Kyoto Institute of Technology, Kyoto, Japan, April 3, 1995.
- Boulant, J.A. "Hypothalamic neurons and temperature regulation" Neurobiology Program, University of Chicago, Chicago, IL, April 4, 1996.
- Boulant, J.A. "Environmental & circadian influences on hypothalamic thermo-regulatory neurons." U.S. Army Research Institute of Environmental Medicine, Natick, MA. July 10, 1996.
- Boulant, J.A. "Intrinsic & synaptic factors affecting thermosensitive hypothalamic neurons" Department of Physiology, University of Saskatchewan, Saskatoon, SK, Canada. August 28, 1996.
- Boulant, J.A. "Intrinsic & synaptic factors affecting thermosensitive hypothalamic neurons" Division of Biomedical Sciences, University of California, Riverside, CA, October 15, 1996.
- Boulant, J.A. Participant in Doctoral Thesis Defense of Philippe Derambure, M.D., Ph.D. "Etude electrophysiologique in vitro des mecanismes neuronaux determinant la fonction circadienne des Noyaux suprachiasmatiques de l'hypothalamus: place de la thermosensibilite neuronale" Department of Physiology, University of Lille, Lille, France, October 6, 1997.
- Boulant, J.A. "Intrinsic & synaptic factors affecting thermosensitive hypothalamic neurons", John B. Pierce Foundation Laboratory and Yale University, New Haven, CT, March 23, 1998.

JACK A. BOULANT

DEPARTMENTAL SEMINARS (continued):

Boulant, J.A. "Intrinsic & synaptic properties of hypothalamic temperature sensitive neurons". Department of Physiology, Kyushu University Faculty of Medicine, Fukuoka, Japan, September 4, 1998.

Boulant, J.A. "Intrinsic & synaptic properties of hypothalamic temperature sensitive neurons". Department of Physiology, University of Osaka, Faculty of Medicine, Osaka, Japan, September 7, 1998.

Boulant, J.A. "Hypothalamic neurons: mechanisms of temperature sensitivity and interactions in homeostatic systems". Noll Physiological Research Center, Pennsylvania State University, University Park, PA, September 23, 1998.

Boulant, J.A. "Temperature sensitivity in hypothalamic neurons". Center for Neuroscience, University of Tennessee, Memphis, TN, November 30, 1999.

JACK A. BOULANT

STUDENTS

Note: All of the doctoral students listed below received their primary support from Dr. Boulant's NIH grant and from the OSU Physiology Department Graduate Program, except for Yanmei Zhao who is a first-year student in the Neuroscience Graduate Program.

In addition, John Reveley, John Griffin, and Penny Burgoon each received one year of partial support (~80%) from the Neural Development, Plasticity & Regeneration Training Program.

PREVIOUS DOCTORAL STUDENTS:

Stephen R. Kelso, Ph.D.

B.S., Ohio State University, Columbus, OH

Ph.D. (OSU: 1977-1981)

Thesis: "The effects of removal of synaptic input on thermosensitive neurons in the preoptic/anterior hypothalamic area".

Postdoctoral with Dr. Gary Lynch

Department of Psychobiology
University of Irvine, Irvine, CA

and

Dr. Thomas H. Brown
Division of Neurosciences
Beckman Research Institute of the City of Hope
Duarte, CA

Current Position:

Associate Professor
Department of Biological Sciences
University of Illinois, Chicago, Illinois

PREVIOUS DOCTORAL STUDENTS:

Nancy L. Silva, Ph.D.

B.A., Southeastern Massachusetts University, N. Dartmouth, MA

Ph.D. (OSU: 1978-1983)

Thesis: "The effects of osmotic pressure, low glucose and reproductive steroids on temperature-sensitive and -insensitive neurons in hypothalamic tissue slices".

Postdoctoral with Dr. Benjamin S. Bunney
Department of Pharmacology
Yale University, School of Medicine
New Haven, CT

and

as a Visiting Research Scientist
with Dr. Jeffery Carpenter
Laboratory of Neurophysiology
NINCDS, Bethesda, Maryland

Current Position: Unknown

Last known position:
School of Public Health
Harvard University
Boston, MA

.....

Jay B. Dean, Ph.D.

B.S., Central Michigan University, Mt. Pleasant, MI

M.S., Michigan Technological University, Houghton, MI

Ph.D. (OSU: 1981-1986)

Thesis: "An electrophysiological analysis of temperature reception and integration in hypothalamic tissue slices".

Postdoctoral with Dr. David Millhorn
Department of Physiology
University of North Carolina, Chapel Hill, NC

Current Position:
Associate Professor
Department of Physiology & Biophysics
Wright State University, College of Medicine
Dayton, OH

PREVIOUS DOCTORAL STUDENTS:

Kathleen A. Travis, Ph.D.

B.S., Tri-State University, Angola, IN

Ph.D. (OSU: 1983-1988)

Thesis: "An electrophysiological analysis of neuronal spontaneous activity, temperature sensitivity and osmosensitivity in normotensive and hypertensive rats".

Postdoctoral with Dr. Kim Johnson

Department of Psychology

University of Iowa, Iowa City, Iowa

Current Address (position unknown):

Mental Health Clinical Research Center

University of Iowa Hospitals & Clinics

University of Iowa, Iowa City, Iowa 52242

.....

John W. Reveley, Ph.D., D.V.M.

B.S., Rutgers University (Cook College), New Brunswick, NJ

Ph.D., D.V.M. (OSU: 1978-1988)

Thesis: "Development of hypothalamic thermosensitivity: electrophysiological and morphological studies in chick embryos and hatchlings".

Current Position:

Private veterinary practice.

Cleveland, Ohio

PREVIOUS DOCTORAL STUDENTS:

Margarita C. Curras, Ph.D.

B.S., Tulane University, New Orleans, LA

Ph.D. (OSU: 1983-1989)

Thesis: "Transduction mechanisms of thermosensitivity in hypothalamic tissue slices".

Postdoctoral with Dr. Raymond J. Dingledine

Department of Pharmacology

University of North Carolina, Chapel Hill, NC

and

as a Research Assistant Professor

Department of Pharmacology

Emory University, College of Medicine

Atlanta, GA

Current Position:

Assistant Professor

Department of Neuroscience

University of California at Riverside

1208 Spieth Hall

Riverside, CA 92521, USA

.....

John D. Griffin, Ph.D.

B.S. University of North Carolina at Wilmington, NC

Ph.D. (OSU: 1988-1993).

Thesis: "Cellular mechanisms and morphological characteristic of hypothalamic thermosensitive and temperature insensitive neurons".

Postdoctoral with Clifford B. Saper, M.D., Ph.D. (Chairman)

Departments of Neurology and Neuroscience

Harvard University, School of Medicine

Boston, MA

Current Position:

Assistant Professor

Department of Biology

College of William & Mary

Williamsburg, VA 23187

PREVIOUS DOCTORAL STUDENTS:

Penny W. Burgoon, Ph.D.

A.B., Oberlin College (1985), Oberlin, OH

M.S., California State University (1989), Northridge, CA

Ph.D. (OSU: 1991-1997).

Thesis: "Temperature sensitivity and temperature compensation of neurons in the suprachiasmatic nucleus".

Postdoctoral with Martha Gillette, Ph.D.

Department of Cell & Structural Biology

University of Illinois

506 Morrill Hall

505 S. Goodwin Avenue

Urbana, IL 61801

.....

Ana R. Chow, Ph.D.

B.S., Louisiana State University (1987), Baton Rouge, LA

Ph.D. (OSU: 1991-1998).

Thesis: "Cellular mechanisms for hypothalamic neuronal temperature sensitivity and their modulation by cyclic AMP".

Postdoctoral with Bai Lu, Ph.D.

Chief, Unit on Synapse, Development & Plasticity

NICHD, NIH

Building 49, Room 6A-67

49 Convent Drive, MSC4480

Bethesda, MD 20892-4480

PREVIOUS DOCTORAL STUDENTS:

Philippe S. Derambure, M.D., Ph.D.

(Boulant: Co-Adviser/Visiting)

M.D. (1990), University of Lille, Lille, France

Ph.D. (1997), University of Lille, Lille, France

Thesis: "Generalities about the circadian function of suprachiasmatic nucleus and the function of thermoregulation in PO/AH".

Current Position:

Professor of Neurophysiology

Department of Physiology

University of Lille

Lille, France

.....

CURRENT DOCTORAL STUDENTS:

Yanmei Zhao

B.S. (Biology), Wuhan University, People's Republic of China

M.S. (Neuroscience), Univ. of Science & Technology of China, P.R. China

Entered Neuroscience Graduate Program at Ohio State University in 1997.

Chadwick L. Wright

B.S. (Biology), Alma College, Alma, Michigan

Entered Ohio State M.D.-Ph.D. program in Physiology & Cell Biology in 1997.