



如何重新燃起 研究能量

李文森教授

wslee@mail.tcu.edu.tw

研究的最大困境？

研究一如登山

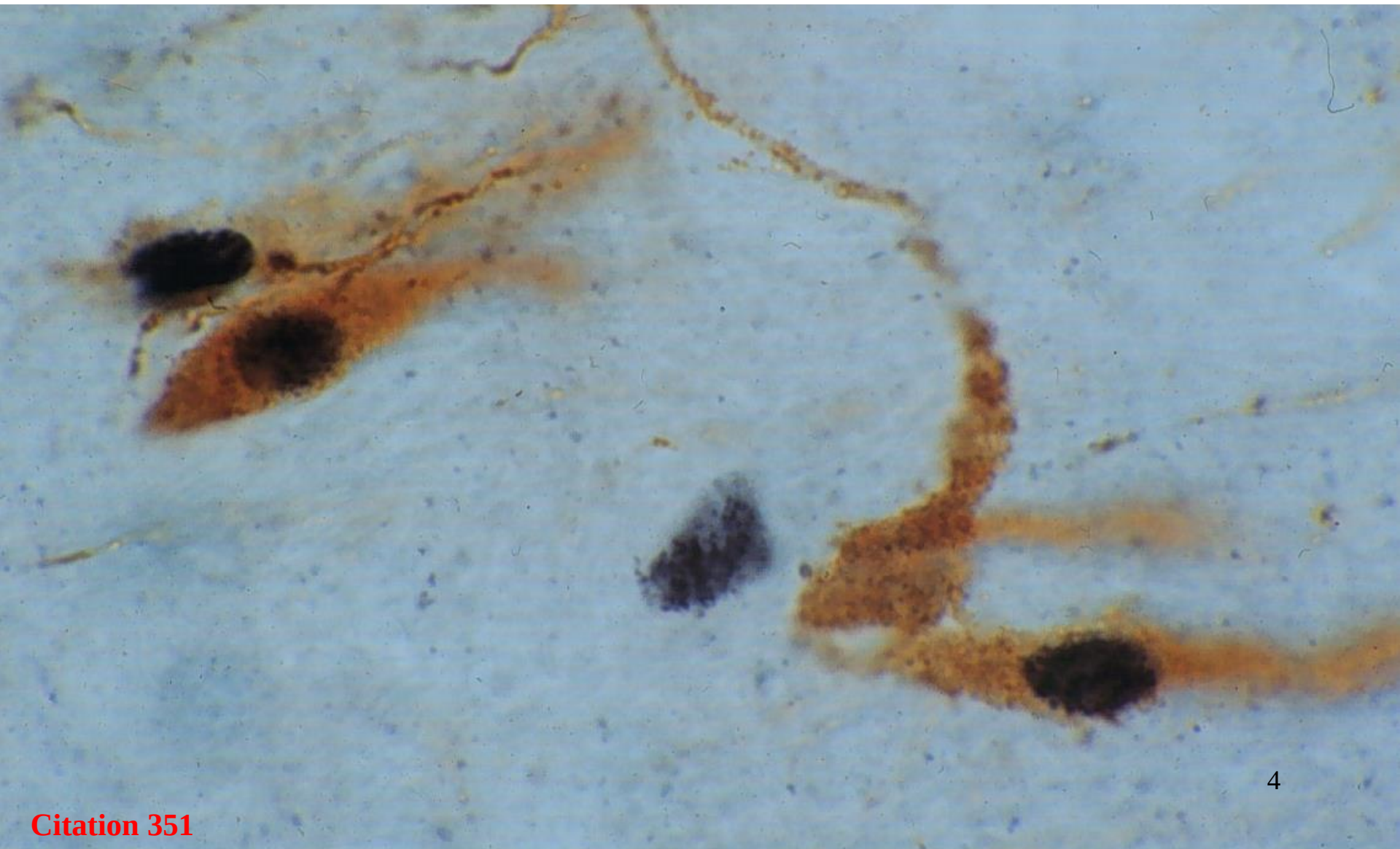
研究的最大動力？

Reward

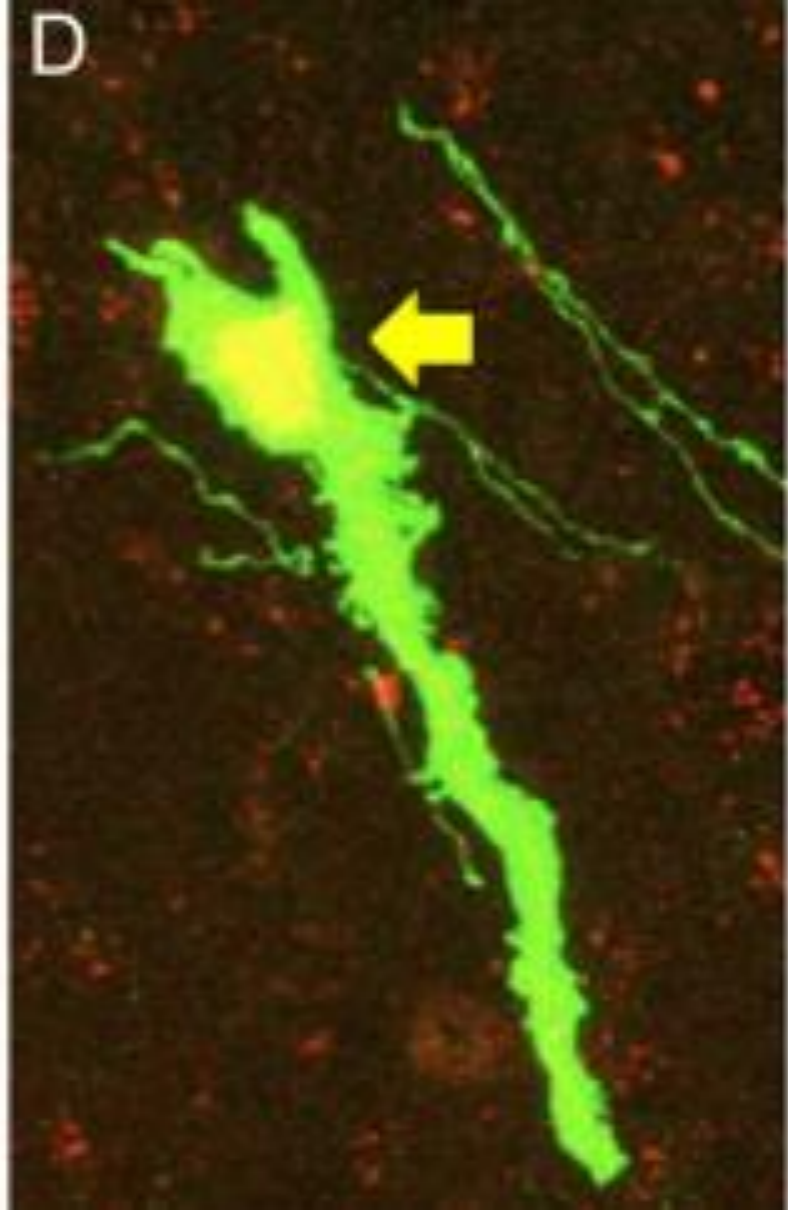
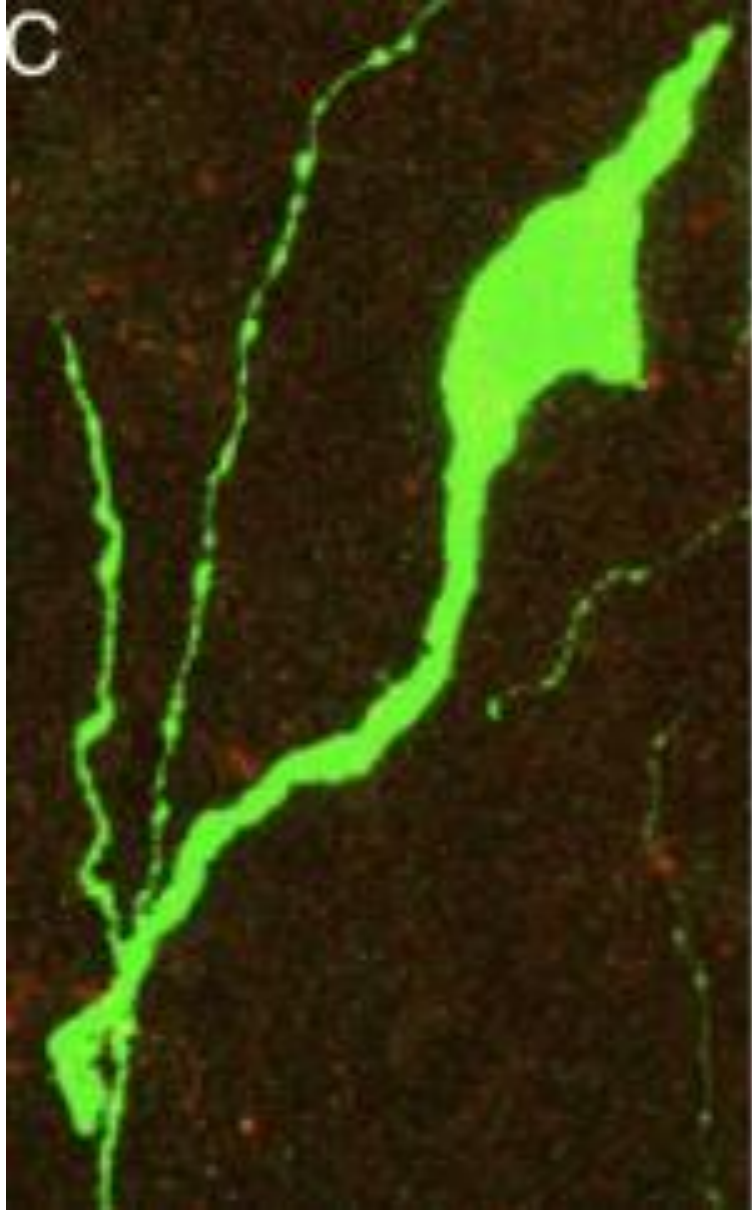
Luteinizing hormone-releasing hormone neurons express Fos protein during the proestrous surge of luteinizing hormone

(oncogene product/estrous cycle/immunocytochemistry/hypothalamus/preoptic area)

WEN-SEN LEE, M. SUSAN SMITH, AND GLORIA E. HOFFMAN*



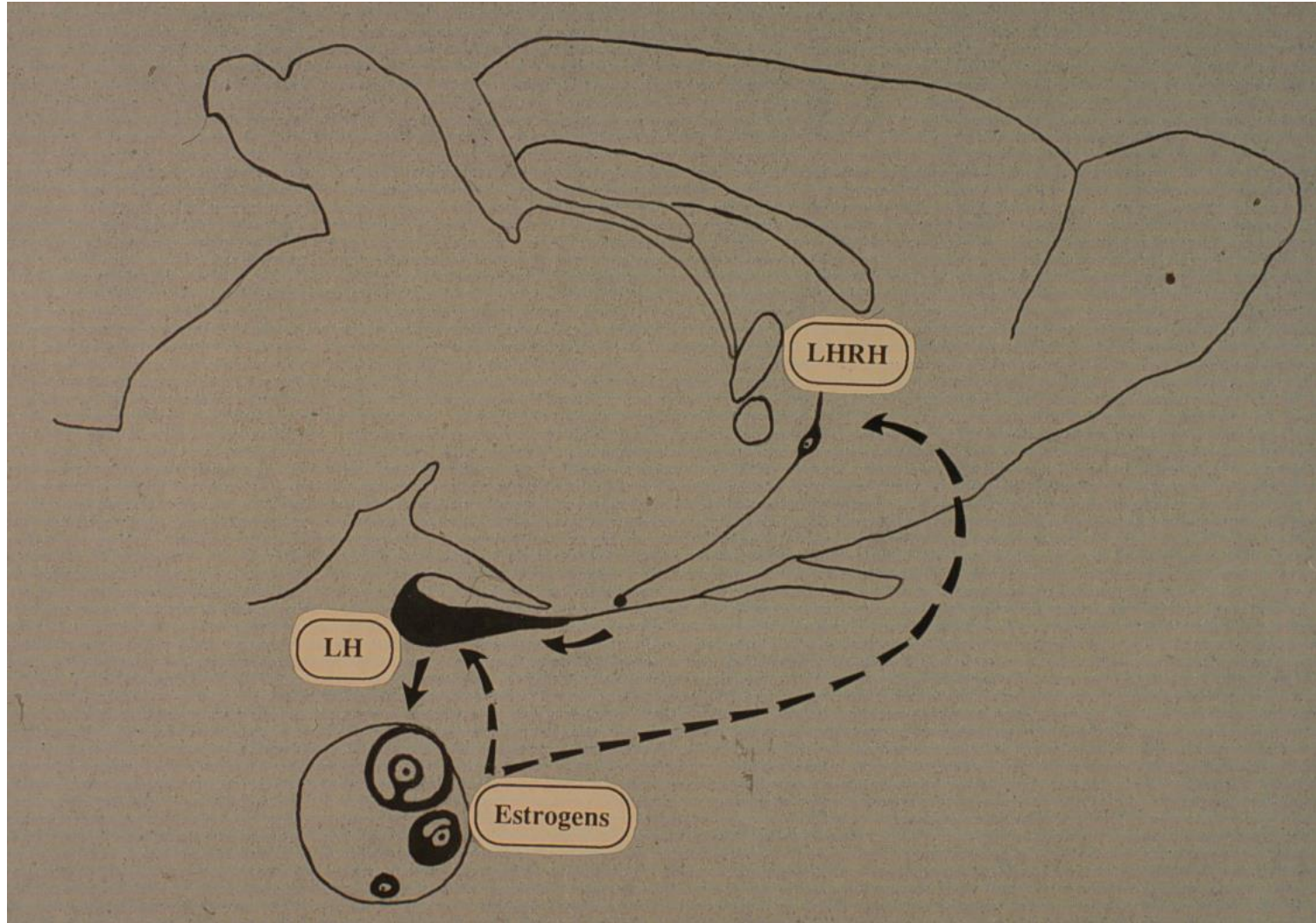
LHRH neuronal activity



Chan et al., Neuroendocrinology 2011, 152: 4906-4914

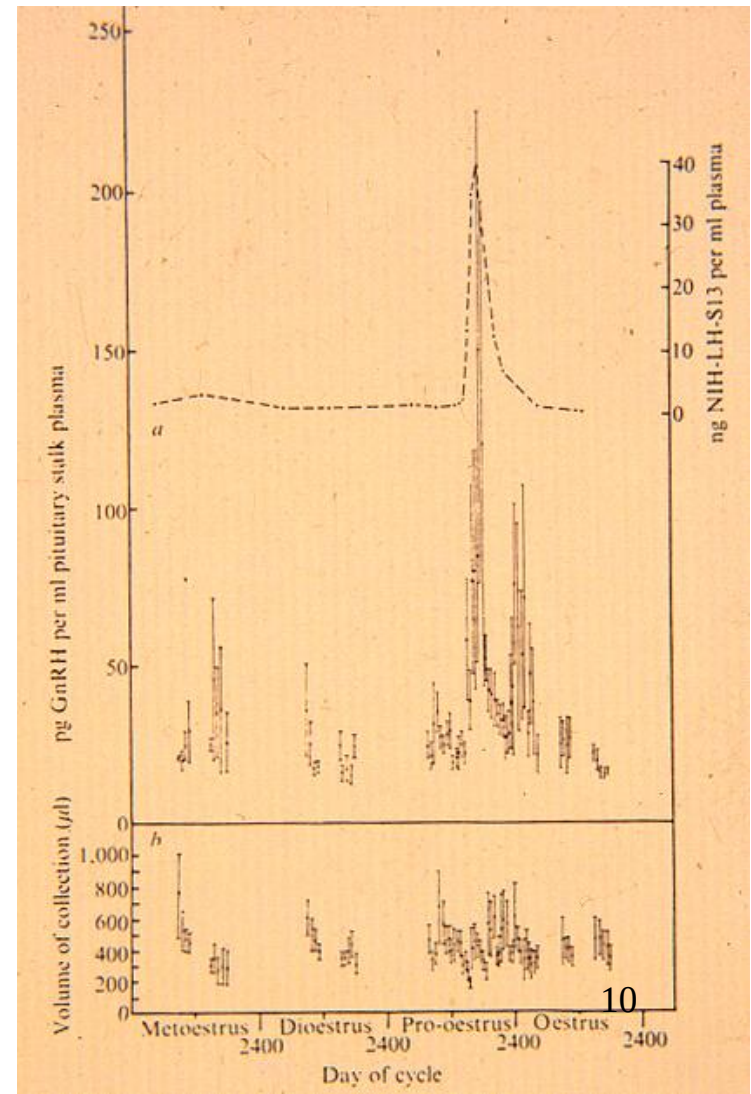
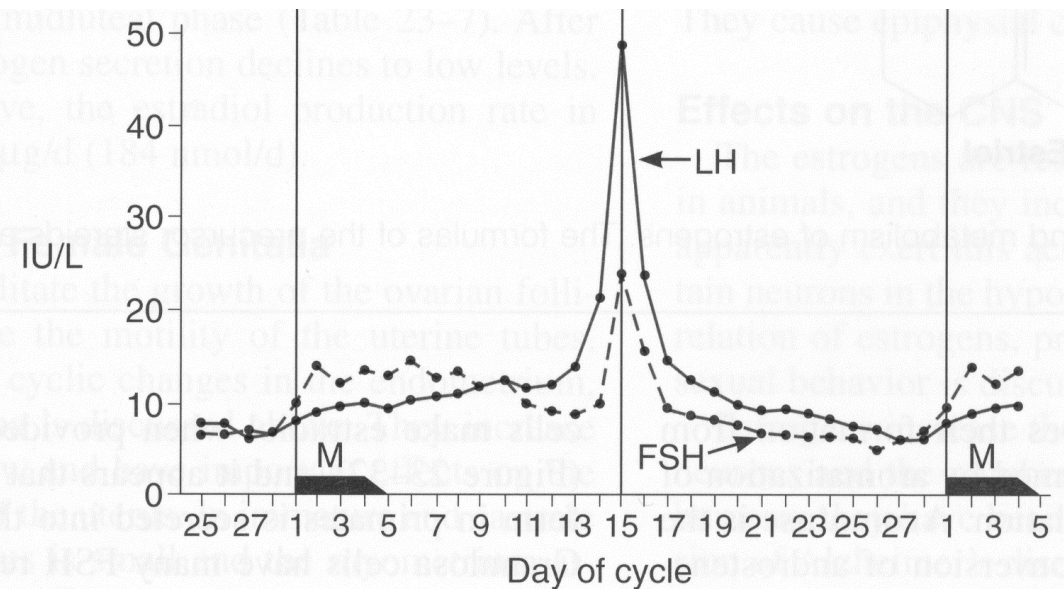
Use of cFos as a marker for LHRH neuronal activation

Hypothalamus-Pituitary-Gonadal Axis



Ovariectomy

Hormonal secretion during menstrual cycle



Right model

Interdisciplinary

1990/1/1-1991/7/31

1. Hoffman, G.E., W.-S. Lee, B. Attardi, V. Yann, and M.D. Fitzsimmons. Endocrinology, 126:1736-1741, 1990. (IP: 5.051)
2. Wen-Sen Lee, M. Susan Smith, and Gloria E. Hoffman. Proc. Natl. Acad. Sci. USA, 87:5163-5167, 1990. (IP: 12.779)
3. Wen-Sen Lee, M. Susan Smith and Gloria E. Hoffman. Endocrinology, 127: 2604-2606, 1990. (IP: 5.051)
4. Wen-Sen Lee. Use of cFos as a Marker for Activation of LHRH Neurons. Ph.D. Dissertation. 1990.
5. M. Susan Smith, Ling R. Lee, Clifford R. Pohl, Wen-Sen Lee, and Gloria E. Hoffman. (1990) in Neuroendocrine Regulation of Reproduction, eds. Samuel S. C. Yen and Wyline W. Vale (Serono Symposia, USA) pp. 39-46.
6. Wen-Sen Lee, M. Susan Smith, and Gloria E. Hoffman. Neuroendocrinology 4: 161-166, 1992. (IP: 5.135)
7. Wen-Sen Lee, Rula Abbud, M. Susan Smith and Gloria E. Hoffman. Endocrinology, 130: 3101-3103, 1992. (IP: 5.051)
8. Rula Abbud, Wen-Sen Lee, Gloria Hoffman, and M. Susan Smith. Molecular and Cellular Neuroscience, 3:244-250, 1992. (IP: 4.626)
9. Gloria E. Hoffman, Wen-Sen Lee, and Susan Wray. (1992) in A Comprehensive Textbook of Neuroendocrinology, ed. Charles B. Nemeroff, CRC Press pp. 185-217.
10. Michael A. Pezzone, Wen-Sen Lee, Gloria E. Hoffman, and Bruce S. Rabin. Brain Research, 597: 41-50, 1992. (IP: 3.61)
11. Gloria E. Hoffman, Wen-Sen Lee, M. Susan Smith, Rula Abbud, Michelle M. Roberts, Alan G. Robinson and Joseph G. Verbalis. (1993) in National Institute on Drug Abuse (NIDA) Technical Review. Activation of Immediate Early Genes by Drugs of Abuse. PP 117-133.
12. Michelle M. Roberts, Alan G. Robinson, Mark D. Fitzsimmons, Fred Grant, Wen-Sen Lee, and Gloria E. Hoffman. Neuroendocrinology, 57: 388-400, 1993. (IP: 5.135)
13. Michael A. Pezzone, Wen-Sen Lee, Gloria E. Hoffman, Kimberly M. Pezzone, and Bruce S. Rabin. Brain Research, 608: 310-318, 1993. (IP: 3.61)
14. Wen-Sen Lee, Rula Abbd, Gloria E. Hoffman, and M. Susan Smith. Endocrinology, 133: 2248-2254, 1993. (IP: 5.051)
15. Gloria E Hoffman, W-W Le, Rula Abbud, Wen-Sen Lee, and M Susan Smith. Brain Research, 654: 207-215, 1994. (IP: 3.61)

**To be a beginner
again**

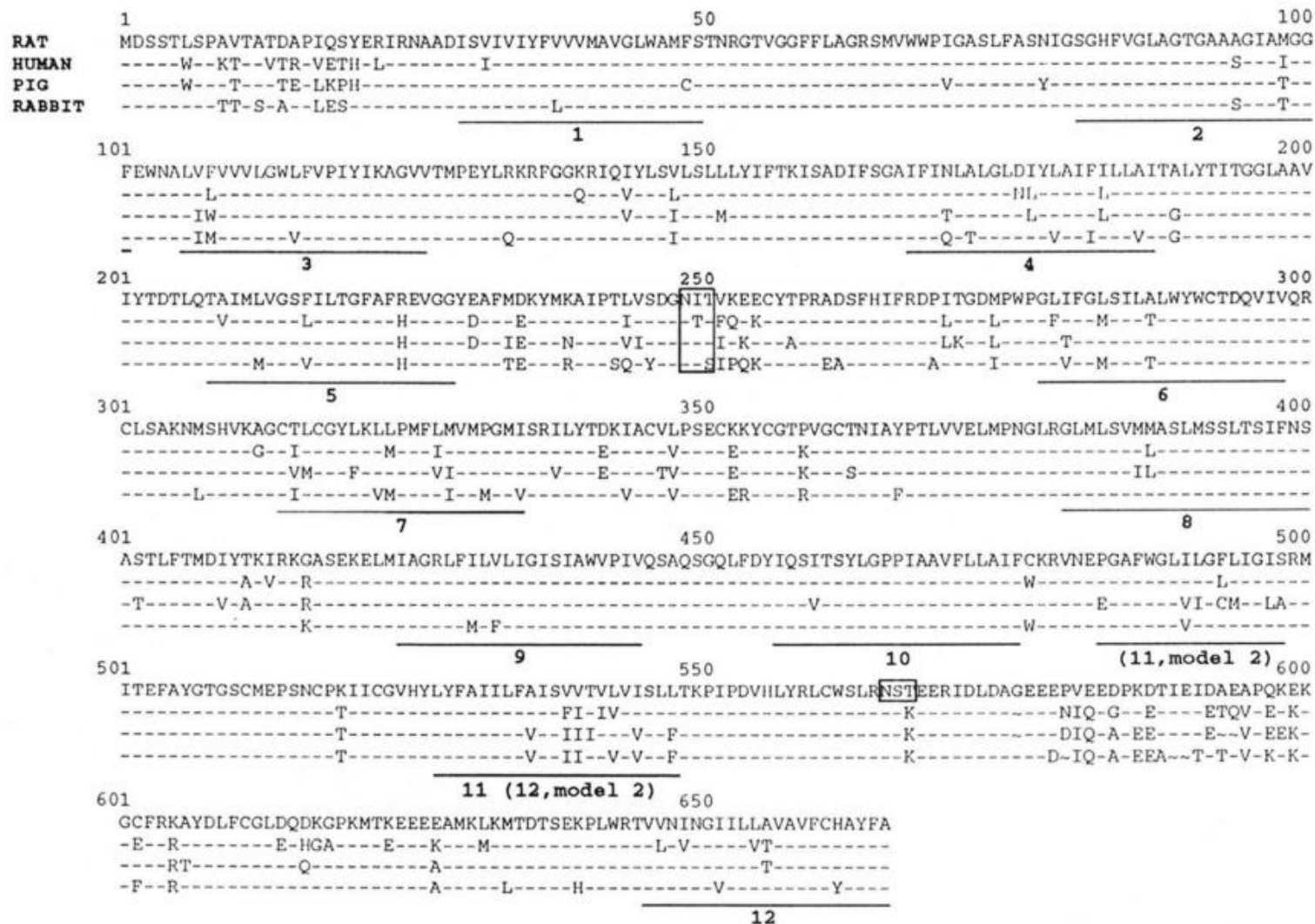
Cloning of sodium/glucose co-transporter

The High Affinity Na⁺/Glucose Cotransporter

RE-EVALUATION OF FUNCTION AND DISTRIBUTION OF EXPRESSION*

(Received for publication, November 5, 1993, and in revised form, January 14, 1994)

Wen-Sen Lee, Yoshikatsu Kanai[‡], Rebecca G. Wells[§], and Matthias A. Hediger[¶]



Renal Division, Brigham and Women's Hospital and Harvard Medical School

1991/8/1-1994/7/31

1. Yoshikatsu Kanai, Matthias G. Stelzner, Wen-Sen Lee, Rebecca G. Well, Dennis Brown, and Matthias A. Hediger. Am. J. Physiol. 263: F1087-F1092, 1992. (IP: 4.097)
2. Rebecca G. Wells, Wen-Sen Lee, Yoshikatsu Kanai, Jeffrey M. Leiden, and Matthias A. Hediger. JBC, 267:15285-15288, 1992. (IP: 5.486)
3. Wen-Sen Lee, Marla J. Berry, Matthias A. Hediger and P. Reed Larsen. Endocrinology, 132: 2136-2140, 1993. (IP: 5.051)
4. Wen-Sen Lee, Rebecca G. Wells, Rachael V. Sabbag, T. Mohandas, and Matthias A. Hediger. JCI, 91: 1959-1963, 1993. (IP: 19.486)
5. Guofeng You, Craig P. Smith, Yoshikatsu Kanai, Wen-Sen Lee, Matthias Stelzner and Matthias A. Hediger. Nature, 365: 844-847, 1993.
6. Yoshikatsu Kanai, Wen-Sen Lee, Guofeng You, Dennis Brown, and Matthias A. Hediger. JCI, 93:397-404, 1994. (IP: 19.486)
7. Charles F. Burant, Susan Flink, Alexander M. DePaoli, Janet Chen, Wen-Sen Lee, Matthias A. Hediger, John B. Buse and Eugene B. Chang. JCI, 93: 578-585, 1994. (IP: 19.486)
8. Gerardo Gamba, Akihiko Miyanooshita, Michael Lombardi, Jonathan Lytton, Wen-Sen Lee, Matthias A. Hediger and Steven C. Hebert. JBC, 269: 17713-17722, 1994. (IP: 5.486)
9. Wen-Sen Lee, Yoshikatsu Kanai, Rebecca G. Wells and Matthias A. Hediger. JBC, 269: 12032-12039, 1994. (IP: 5.486)
10. Daniela Riccardi, Ji Park, Wen-Sen Lee, Gerardo Gamba, Edward M. Brown and Steven C. Hebert. Proc. Natl. Acad. Sci. USA, 92: 131-135, 1995. (IP: 12.779)
11. Wen-Sen Lee, and Steven C. Hebert. Am. J. Physiol. 268: F1124-F1131, 1995. (IP: 4.097)
12. Craig P. Smith, Wen-Sen Lee, Sonia Martial, Mark A. Knepper, Guofeng You, Jeff M. Sand and Matthias A. Hediger. JCI, 96: 1556-1563, 1995. (IP: 19.486)
13. Kwan-Dun Wu, Wen-Sen Lee, Jane Wey, David Bungard, and Jonathan Lytton. Am. J. Physiol. 38 (3): C775-C784, 1995. (IP: 4.097)
14. Guofeng You, Wen-Sen Lee, Elvino J.G. Barros, Yoshikatsu Kanai, Teh-Li Huo, Sadiqa Khawaja, Rebecca G. Wells, Sanjay K. Nigam, and Matthias A. Hediger. The Journal of Biological Chemistry, 270: 29365-29371, 1995. (IP: 5.486)
15. Mark R. Kaplan, Matthew D. Plotkin, Wen-Sen Lee, Zheng-Chun Xu, Jonathan Lytton, and Steven C. Hebert. Kidney International, 49: 40-47, 1996. (IP: 18.998)
16. Matthias A. Hediger, Craig P. Smith, Guofeng You, Wen-Sen Lee, Yoshikatsu Kanai, and Chairat Shayakul. Kidney International, 49(6):1615-1623, 1996. (IP: 18.998)
17. Matthew D. Plotkin, Mark R. Kaplan, Jill W. Verlander, Wen-Sen Lee, Dennis Brown, Esteban Poch, Steven R. Gullans, and Steven C. Hebert. Kidney International, 50: 174-183, 1996. (IP: 18.998)
18. Daniela Riccardi, Wen-Sen Lee, Kaechoong Lee, Gino V. Segre, Edward M. Brown, and Steven C. Hebert. Am. J. Physiol. 271 (4):F951-F956, 1996. (IP: 4.097)
19. Nazneen Aziz, Dennis Brown, Wen-Sen Lee, and Aniko Naray-Fejes-Toth. Endocrinology, 137:5581-5588, 1996. (IP: 5.051)
- 20 Chairat Shayakul, Yoshikatsu Kanai, Wen-Sen Lee, Dennis Brown., Jeffrey D. Rothstein, Matthias A. Hediger. Am. J. Physiol. 273:F1023-9, 1997. (IP: 4.097)

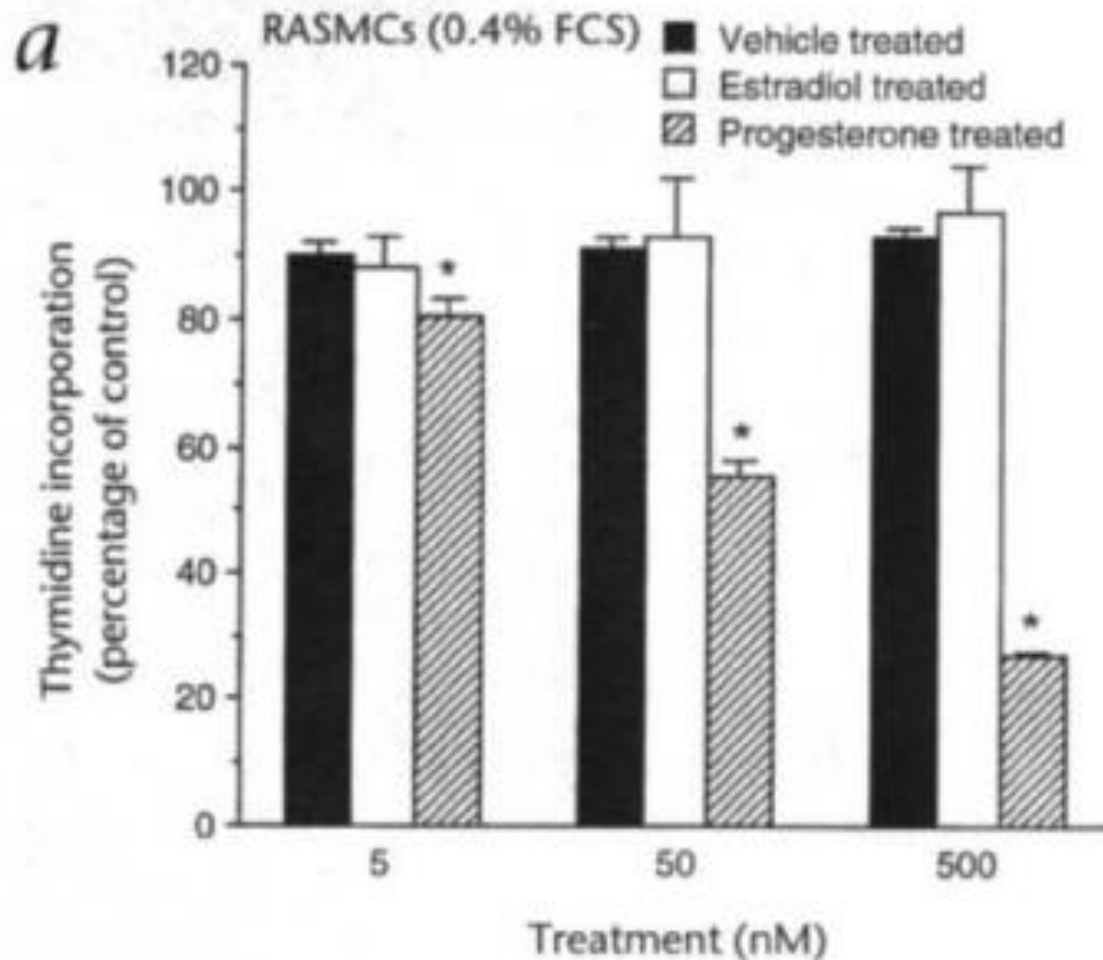
研究瓶頸

研究題目

Female sex hormones and atherosclerosis

Progesterone inhibits arterial smooth muscle cell proliferation

WEN-SEN LEE^{1,2}, JUSTIN A. HARDER¹, MASAO YOSHIKUMI^{1,2}, MU-EN LEE¹⁻³ & EDGAR HABER^{1,2}



Cardiovascular Biology Laboratory, Harvard School of Public Health

1994/8/1-1996/12/31

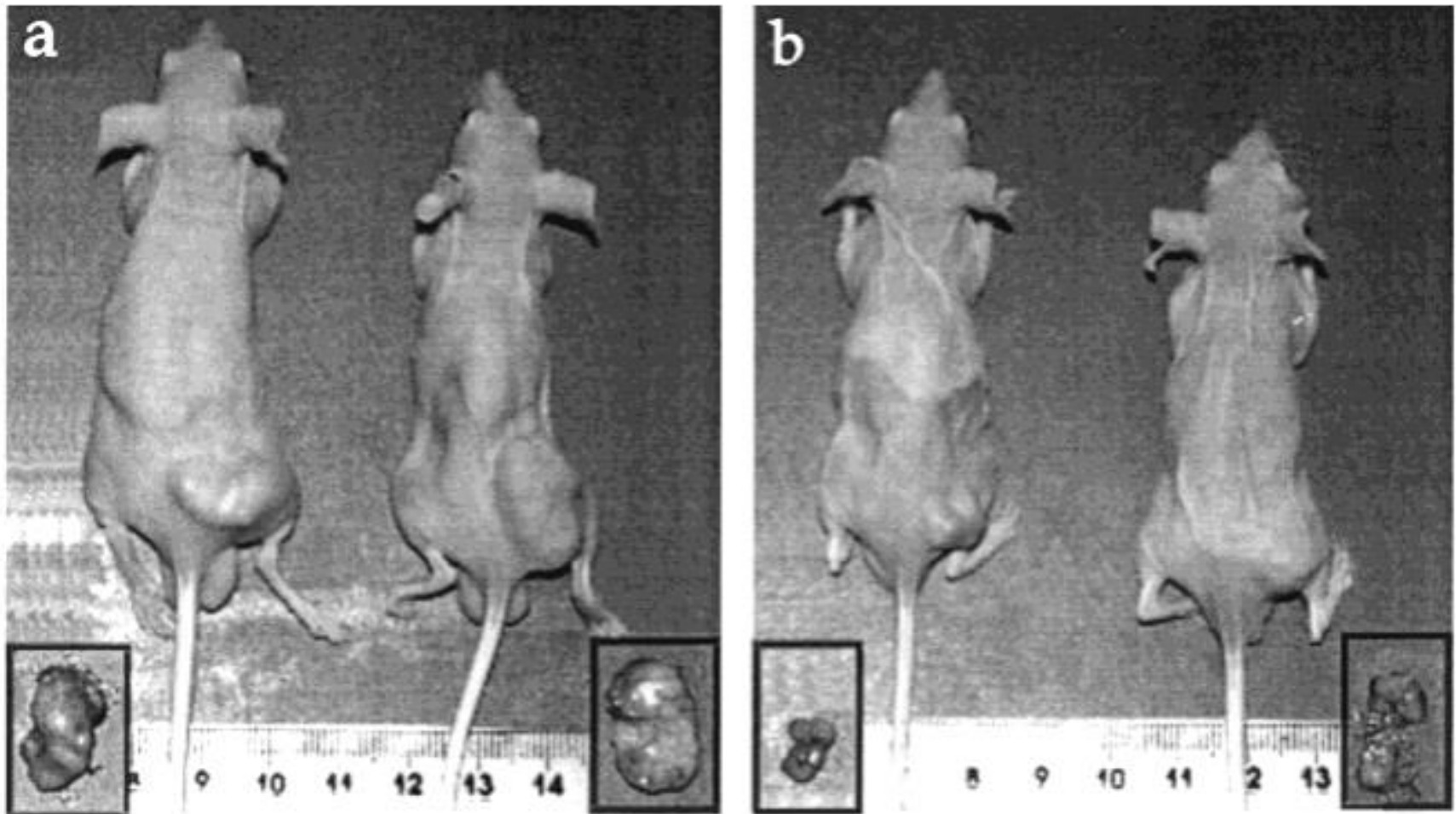
1. Masao Yoshizumi, **Wen-Sen Lee**, Chung-Ming Hsieh, Jer-Chia Tsai, Jian Li, Mark A. Perrella, Cam Patterson, Wilson Endege, Robert Schlegel and Mu-En Lee. The Journal of Clinical Investigation, 95: 2275-2280, 1995. (IP: 19.486)
2. Jer-Chia Tsai, Muhesh Jain, Chung-Ming Hsieh, **Wen-Sen Lee**, Cam Patterson, Mark A. Perrella, Carol Cooke, Edgar Haber, Robert Schlegel, and Mu-En Lee. Journal of Biological Chemistry, 271:3667-3670, 1996. (IP: 5.486)
3. Muhesh Jain, Qi He, **Wen-Sen Lee**, Saori Kashiki, Jer-Chia Tsai, Mu-En Lee, and Edgar Habers The Journal of Clinical Investigation, 97:596-603, 1996. (IP: 19.486)
4. Mark A. Perrella, Chung-Ming Hsieh, **Wen-Sen Lee**, Sherry Shieh, Jer-Chia Tsai, Cam Patterson, Charles J. Lowenstein, Nancy Long, Edgar Haber, Stephanie Shore, and Mu-En Lee. Proc. Natl. Acad. Sci. USA, 93: 2054-2059, 1996. (IP: 12.779)
5. Mukesh K. Jain, Kenji P Fujita, Chung-Ming Hsieh, Wilson O Endege, Nicholas E.S. Sibinga, Shaw-Fang Yet, Saori Kashiki, **Wen-Sen Lee**, Mark A. Perrella, Edgar Haber, Mu-En Lee. Journal of Biological Chemistry, 271: 10194-10199, 1996. (IP: 5.486)
6. Chengwei Shi, **Wen-Sen Lee**, Qi He, Dorothy Zhang, Donald L. Fletcher, Jr., John B. Newell, and Edgar Haber. Proc. Natl. Acad. Sci. USA, 93:4051-4056, 1996. . (IP: 12.779)
7. Chung-Ming Hsieh, Masao Yoshizumi, Wilson Endege, Mukesh Jain, Choon-Joo Kho, Saori Kashiki, Audruy M. Hong, Rico de los Santos, **Wen-Sen Lee**, Mark A. Perrella, and Mu-En Lee. Journal of Biological Chemistry, 271:17354-17359, 1996. (IP: 5.486)
8. Kaihua Lai, Hong Wang, **Wen-Sen Lee**, Mukesh K. Jain, Mu-En Lee and Edgar Haber. The Journal of Clinical Investigation, 98: 1560-1567, 1996. (IP: 19.486)
9. Nicholas E. Sibinga, Lauren C. Foster, Chung-Ming Hsieh, Mark A. Perrella, **Wen-Sen Lee**, Wilson O. Endege, Roger J. Laham, Helene Sage, Mu-En Lee, and Edgar Haber. Circulation Research, 80:532-541, 1997. (IP: 23.213)
10. Chengwei Shi, **Wen-Sen Lee**, Mary E. Russell, Dorothy Zhang, Donald L. Fletcher, Jr., John B. Newell and Edgar Haber. Circulation 96:2722-2728, 1997. (IP: 39.918)
11. Shaw-Fang Yet, Andrea Pellacani, Cam Patterson, Larissa Tan, Sara C. Foltz, Lauren Foster, **Wen-Sen Lee**, and Mark A. Perrella The Journal of Biological Chemistry, 272: 4295-4301, 1997. (IP: 5.486)
12. **Wen-Sen Lee**, Justin A. Harder, Masao Yoshizumi, Mu-En Lee, and Edgar Haber. Nature Medicine 3:1005-1008, 1997. (IP: 87.241)
13. **Wen-Sen Lee**, Burak M. Arkonac, Dorothy Zhang, Shyh-Yu Shaw, Saori Kashiki, Koji Maemura, Shwu-Luan Lee, Norman K. Hollenberg, Mukesh K. Jain, Mu-En Lee and Edgar Haber. Circulation Research 82:845-851, 1998. (IP: 23.213)

Cancer research

Magnolol

Magnolol Suppresses Proliferation of Cultured Human Colon and Liver Cancer Cells by Inhibiting DNA Synthesis and Activating Apoptosis

Shyr-Yi Lin,^{1,2} Jean-Dean Liu,² Hui-Chiu Chang,³ Shauh-Der Yeh,¹ Chien-Huang Lin,⁴ and Wen-Sen Lee^{1,5*}

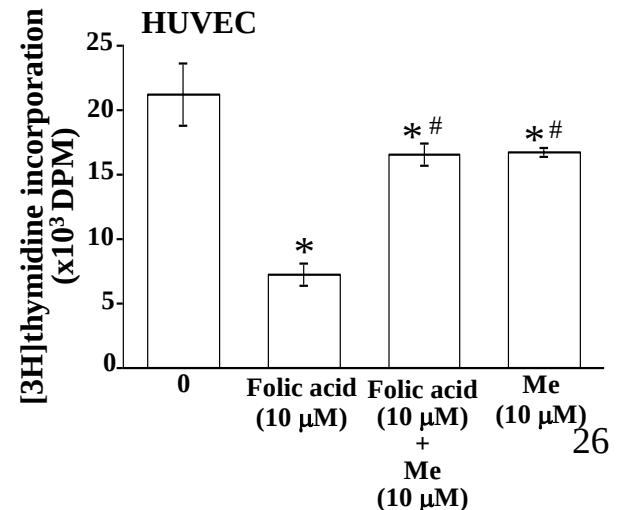
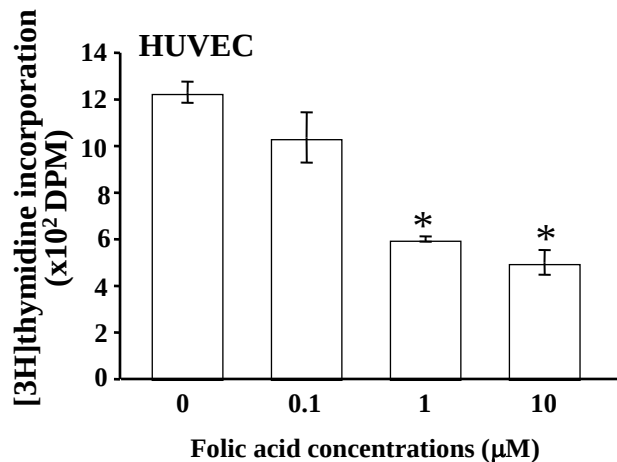
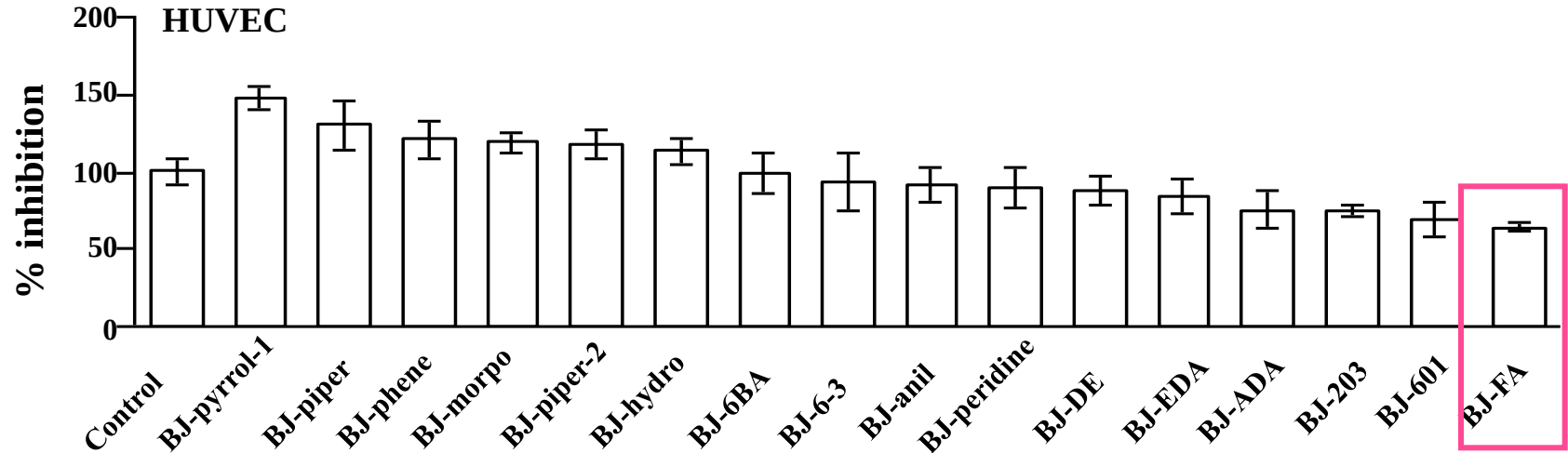


Cancer research

Angiogenesis

Progesterone

Effects of BJ-601-related compounds on HUVEC proliferation



- **Predoc. 2篇 (20)**
- **Ph.D. 15篇 (1615)**
- **Postdoc. 20篇 (5060)**
- **Research associate 13篇 (1898)**
- **Prof. Taiwan 100篇 (3472)**
- **(12065)**

Establish scientific network

研究的基本條件

經費

計畫

人力

計畫審查的要點

過去五年研究成果 (30%)

計畫審查要點 (70%)