

## CURRICULUM VITAE

Name: **Claudia Schmauss**  
Birthplace: Berlin, Germany  
Citizenship: Germany  
Permanent Resident of the United States

### ACADEMIC TRAINING:

**1974-1980:** Humboldt University School of Medicine  
Berlin, Germany

**1979:** M.A. (Physiology)  
Humboldt University, Berlin

**1980:** M.D.  
Humboldt University, Berlin  
(ECFMG Certification Number (USA): 355-354-0)

### TRAINEESHIP:

#### *Postdoctoral training:*

**1981-1982:** *Postdoctoral Fellow in Neuropharmacology*  
Mayo Clinic, Rochester, MN

**1987-1991:** *Associate Research Scientist in Molecular Neurobiology*  
Yale University School of Medicine  
Section of Molecular Neurobiology (HHMI)  
New Haven, CT

#### *Resident training:*

**1983-1987:** *Resident in Psychiatry*  
Max Planck Institute for Psychiatry  
Munich, Germany.

**1987:** German Specialty Board Certification in Psychiatry

### PROFESSIONAL ORGANIZATIONS AND SOCIETIES:

Society for Neuroscience (USA), member  
American Association for the Advancement of Science, member

### ACADEMIC APPOINTMENTS:

**1991-1996:** Assistant Professor

Department of Psychiatry and Brookdale Center for  
Molecular Biology  
Mount Sinai School of Medicine, New York, NY

**1997-1998: Associate Professor**

Department of Psychiatry and Brookdale Center for  
Molecular and Developmental Biology  
Mount Sinai School of Medicine, New York, NY

**1998-present: Associate Professor,**

Department of Psychiatry, Columbia University College of  
Physicians & Surgeons

**Research Scientist V,**  
New York State Psychiatric Institute,  
New York, NY

**HONORS:**

**1987:** Otto Hahn Research Award sponsored by the Max Planck  
Society, Germany

**1996:** Irma T. Hirschl Career Scientist Award

**2001:** Essel Investigator (NARSAD)

**TEACHING:**

***Lecturer:***

**1991-1998:** Lecturer in the Biochemistry Core I course,  
CUNY & Mount Sinai Graduate School

**1991-1998:** Lecturer in the Neuroscience Course  
(Psychiatry, PGYII), Mount Sinai School of Medicine

***Preceptor of Predoctoral Trainees:***

**1996-1999:** Mi-Young Jung, PhD student in Neurobiology, Mount Sinai  
Graduate School, Title of thesis: "*Molecular phenotypes of mice deficient for  
dopamine D2 and D3 receptors examined during postnatal development*"  
graduated in August 1999

**1998-2002:** Ilona Gurevich, PhD student in Molecular Biology, Mount Sinai  
Graduate School, Title of the thesis: "*Serotonin 2C receptor pre-mRNA  
processing in human and mouse neocortex: potential mechanisms of  
regulation*"  
graduated in May 2002

***Mentor of Postdoctoral Fellows:***

**1994-1997:** Boris Skryabin, MD, PhD

**2000-present:** Sara B. Glickstein, PhD

**2000-present:** Mella Adlersberg, PhD

**2002-present:** Ilona Gurevich, PhD

***Sponsor of Undergraduate Research Trainees:***

**1996:** Julie H. Yoon (Wellesley College; supported by an NSF-REU supplement)  
**1996:** Nicholas Bianchi (Carnegie Mellon Univ, Sigma Xi Stipend)  
**1997:** Julia Kirsch (Technical University, Berlin)  
**2002** –present: Michael Englander, B.A. (post Bachelor pre-med student, Columbia University)

## PUBLICATIONS

### A. ORIGINAL PEER-REVIEWED REPORTS .

1. Schmauss,C., Berthot,W. & Siegmund,H. (1981). Effekte der Ablatio des auditorischen Cortex auf die audio-visuelle targeting Reaktion bei Katzen. *Erg. Exp. Forsch.* **4**: 72.
2. Schmauss,C. (1981). Neue Ergebnisse der experimentellen Schmerzforschung. Sensorische Modulation der nozizeptiven Information. *Dtsch. Ges. Wesen* **37**: 698-704.
3. Kulawik,H. & Schmauss,C. (1982). Psychotherapie. Methoden. Kombinationen. Zwischenbilanz und Neubesinnung. *Psychiat. Neurol. med. Psychol.* **34**: 641-646.
4. Yaksh, T.L., Schmauss,C., Micevich,P.E., Abay,E.O. & Go, V.L.V.(1982). Pharmacological studies on the application, disposition and release of neurotensin in the spinal cord. *Ann. New York Acad. Sci.* **400**: 228-243.
5. Schmauss,C., Doherty,C. & Yaksh, T.L. (1983). The analgesic effect of the intrathecally administered partial opiate agonist nalbuphine hydrochloride. *Eur. J. Pharmacol.* **86**: 1-7.
6. Schmauss,C., Hammond,D.L., Ochi,J. & Yaksh,T.L. (1983). Pharmacological antagonism of the antinociceptive effect of serotonin in the rat spinal cord. *Eur. J. Pharmacol.* **90**: 349-357.
7. Schmauss,C., Yaksh,T.L., Shimohigashi,Y., Hardy,G., Jenssen,T. & Rodbard,D. (1983). Differential association of spinal mu, delta, and kappa opioid receptors with cutaneous thermal and chemical visceral nociceptive stimuli in the rat. *Life Sci.* **33**, Suppl. I: 653-656.
8. Schmauss,C. & Yaksh, T.L. (1983). In vivo studies on spinal opioid receptor systems mediating antinociception.II. Pharmacological profile suggesting an differential association of mu, delta and kappa receptors with visceral chemical and cutaneous thermal stimuli in the rat. *J. Pharmacol. Exp. Ther.* **228**: 1-12.
9. Millan,M.J., Schmauss,C. Millan,M. & Herz,A. (1984). Vassopressin and oxitocin in the rat spinal cord: Analysis of their role in nociception. *Brain Res.* **309**: 384-388.

10. Schmauss,C., Shimohigashi,Y., Jenssen,T., Rodbard,D. & Yaksh,T.L. (1984). In vivo studies on spinal opioid receptor systems mediating antinociception. III. Analgesic effects of enkephalin dimers as measured by cutaneous thermal and visceral chemical evoked responses in the rat. *Brain Res.* **377**: 209-215.
11. Schmauss,C., Apelt,S. & Emrich,H.M.(1987). Benzodiazepine withdrawal in high- and low-dose dependency of psychiatric inpatients. *Brain Res. Bull.* **19**: 393-400.
12. Schmauss,C. & Krieg,C.J.(1987). Enlargement of cerebrospinal fluid spaces in long-term benzodiazepine abusers. *Psychol. Med.***17**: 869-873.
13. Schmauss,C. & Herz,A.(1987). Spinal dynorphin 1-17 differentially modulates morphine analgesia in morphine-naive and morphine-tolerant rats. *Eur. J. Pharmacol.* **135**: 429-431.
14. Schmauss,C. (1987).Spinal kappa-opioid receptor mediated antinociception is stimulus-specific. *Eur. J. Pharmacol.* **137**: 197-205.
15. Schmauss,C., Yassouridis,A. & Emrich,H.M.(1987). The effects of the partial opiate agonist buprenorphine on acute psychotic symptoms in patients suffering from schizophrenia. *Am. J. Psychiat.* **144**: 1340-1341.
16. Schmauss,C., Apelt,S. & Emrich,H.M. (1988). Liking and seeking potentials of alprazolam and diazepam in bromazepam dependent patients. *Am. J. Psychiat.* **145**: 128.
17. Schmauss,C., Apelt,S. & Emrich,H.M. (1989). Preference of alprazolam over diazepam. *Am. J. Psychiat.* **145**: 408.
18. Schmauss,C., McAllister,G., Ohosone,Y., Hardin,J.A. & Lerner, M.R. (1989). A comparison of the snRNP-associated Sm-autoantigens human N, rat N and human B/B'. *Nucl. Acids. Res.* **17**: 1733- 1744.
19. Schmauss,C. & Lerner, M.R. (1990) The closely related snRNP polypeptides N and B/B' are distinguishable by antibodies as well as by differences in their mRNA and gene structures. *J. Biol. Chem.* **265**: 10733-10739.
20. Schmauss,C., Brines,M.L.& Lerner, M.R. (1992) The gene encoding the small nuclear ribonucleoprotein-associated protein N is expressed at high levels in neurons. *J. Biol. Chem.* **267**: 8521-8529.
21. Griffith,A., Schmauss,C. & Craft,J. (1992) The Sm B protein is highly conserved between species and its murine gene contains a nonfunctional alternative 3' splice site. *Gene* **114**: 195-201.

22. Schmauss, C., Haroutunian, V., Davis, K.L. & Davidson, M. (1993) Selective loss of dopamine D<sub>3</sub>-type receptor mRNA expression in parietal and motor cortices in patients with chronic schizophrenia. *Proc. Natl. Acad. Sci. U.S.A.* **90**, 8942-8946 .
23. Potenza, M.N., Graminski, G.F., Schmauss, C. & Lerner, M.R. (1994) Functional expression and characterization of human D<sub>2</sub> and D<sub>3</sub> dopamine receptors. *J. Neurosci.* **14**, 1463-1476.
24. Liu, K., Bergson, C., Levenson, R. & Schmauss, C. (1994) On the origin of mRNA encoding the truncated dopamine D<sub>3</sub>-type receptor D<sub>3nf</sub> and detection of D<sub>3nf</sub>-like immunoreactivity in human brain. *J. Biol. Chem.* **269**, 29220-29226.
25. Howe, J.R., Skryabin, B.V., Belcher, S. M., Zerillo, C.A. & Schmauss, C. (1995). The responsiveness of a tetracycline-sensitive expression system differs in different cell lines. *J. Biol. Chem.* **270**, 14168-14174.
26. Schmauss, C. (1996). Enhanced cleavage of an atypical intron of dopamine D<sub>3</sub>-receptor pre-mRNA in chronic schizophrenia. *J. Neurosci.* **16**: 7902-7909.
27. Skryabin, B.V. & Schmauss, C. (1997). Enhanced selection for homologous-recombinant embryonic stem cell clones with a neomycine phosphotransferase gene in antisense orientation. *Transgenic Res.* **6**: 27-35.
28. Nimchinsky, E.A., Hof, P.R., Janssen, W.G.M., Morrison, J.H. & Schmauss, C. (1997). Expression of dopamine D<sub>3</sub> receptor dimers and tetramers in brain and in transfected cells. *J. Biol. Chem.* **272**: 29229-29237.
29. Jung, M.-Y., Skryabin, B.V., Arai, M., Abbondanzo, S., Fu, D., Robakis, N.K., Brosius, J., Polites, H.G., Pintar, J.E. & Schmauss, C. (1999). Potentiation of the D<sub>2</sub>-mutant motor phenotype in mice lacking dopamine D<sub>2</sub> and D<sub>3</sub> receptors. *Neuroscience* **91**: 911-924.
30. Jung, M.J. & Schmauss (1999). Decreased *c-fos* responses to dopamine D<sub>1</sub>-receptor stimulation in mice deficient for D<sub>3</sub> receptors. *J. Biol. Chem.* **274**: 29406-29412.
31. Jung, M.-Y., Hof, P.R., and Schmauss, C. (2000). The targeted disruption of the dopamine D<sub>2</sub> and D<sub>3</sub> receptor genes leads to different alterations in the expression of striatal calbindin-D<sub>28K</sub>. *Neuroscience* **97**: 495-504.
32. Schmauss, C. (2000). A single dose of methamphetamine leads to a long-term reversal of the blunted neocortical dopamine D<sub>1</sub>-receptor mediated *c-fos* responses in mice deficient for D<sub>2</sub> and D<sub>3</sub> receptors. *J. Biol. Chem* **275**: 38944-38948.

33. Schmitz, Y., Lee, J., Schmauss, C., Gonon, F., and Sulzer, D. (2001). Amphetamine distorts synaptic dopamine overflow: effects on vesicular stores, D2 autoreceptors, and uptake. *J. Neurosci.* **21**: 5916-5924.
34. Gurevich, I., Tamir, H., Arango, V., Dwork, A.J., Mann, J.J., and Schmauss, C. (2002). Altered editing of 5-HT<sub>2C</sub> pre-mRNA in the prefrontal cortex of depressed suicide victims. *Neuron* **34**: 349-356.
35. Glickstein, S.B., Hof, P.R., and Schmauss, C. (2002). Mice lacking dopamine D2 and D3 receptors have spatial working memory deficits. *J. Neurosci.* **22(13)**: 5619-5629.
36. Schmitz Y., Schmauss C., Sulzer D. (2002) Altered dopamine release and uptake kinetics in mice lacking D2 receptors. *J. Neurosci.* **22(18)**: 8002-8009.
37. Gurevich, I., Englander, M.T., Adlersberg, M., Siegal, N.B., and Schmauss, C. (2002). Modulation of serotonin 2C receptor editing by sustained changes in serotonergic neurotransmission. *J. Neurosci.* **22 (24)**: 10529-10532.
38. Bamford, N.S., Schmitz, Y., Schmauss, C., Zakharenko, S., Zablow, L., and Sulzer, D. (2002). Axo-axonic regulation of corticostriatal transmission by dopamine. *submitted*.
39. Adlersberg, M., Hsiung, S.-c., Liu, K.-p., Glickstein, S.B., Tamir, H., and Schmauss (2003). Decreased dopamine D<sub>1</sub>-receptor activation of G protein in the forebrain neocortex of mice lacking D<sub>2</sub> receptors. *submitted*.

## **B. REVIEWS & CHAPTERS.**

- Schmauss, C. & Emrich, H.M. (1985) The relevance of dopamine to the effects evoked by opiates. A re-evaluation of the dopamine hypothesis of schizophrenia with special consideration of the proposed involvement of endogenous opioids. *Biol. Psychiat.* **20**: 1211-1231. (review).
- Schmauss, C., Apelt, S., Pirke, K.M. & Emrich, H.M. (1986). The effects of the partial opioid agonist buprenorphine on acute psychotic symptoms and plasma prolactin levels of schizophrenic inpatients. In Shagass, C., Josiassen, R.C., Bridger, W.H., Weiss, K.J., Stoff, D. & Simpson, G.M. [Eds]. *Dev. Psychiat.* Vol. 7, pp 305-308. (chapter)
- Schmauss, C. & Emrich, H.M. (1987). The effects of opioids on behavior. Possible role in psychotogenesis. In: Nemeroff, C.B. & Loosen, P.T. [Eds]. *Handbook of Psychoneuroendocrinology*. The Guilford Press, New York, pp. 417-428. (chapter)

- Schmauss,C. & Emrich,H.M. (1988). Narcotic antagonist and opioid treatment in psychiatry. In: Rogers,R.J & Cooper,S.J. [Eds]. Endorphins, Opiates and Behavioral Processes. Wiley Ltd., London, pp. 327-351. (chapter)
- Schmauss,C.,Pirke,K.M., Bremer,D., Weber,M. & Emrich,H.M. (1989) Luteinizing hormone and prolactin response to buprenorphine in depression and schizophrenia. In: Lerer,B. & Gershon,S. [Eds] New directions in affective disorders. Springer. New York, pp. 276-279. (chapter)
- Emrich,H.M. & Schmauss,C. (1991). Psychiatric aspects of opioid research. In: Almeida,O.F.X. & Shippenberg,T.S. [Eds]. Neurobiology of opioids. Springer-Verlag, pp. 363-367. (chapter)
- Schmauss, C. (2000). Dopamine receptors: Novel insights from biochemical and genetic studies. *The Neuroscientist* **6**(2): 125-136. (review)
- Glickstein,S.B. & Schmauss, C. (2001). Dopamine receptor functions: Lessons from knockout mice. *Pharmacol. & Therapeut.*,**91** (1): 63-83. (review)
- Schmauss,C. (2002). Dopamine Receptors/Transporters. In: Wiley Encyclopedia of Molecular Medicine. John Wiley & Sons, Inc. New York, New York , Vol 2, pp. 1095-1098 (chapter)
- Schmauss, C., Glickstein, S.B., Adlersberg, M., Hsiung, S.-C., and Tamir, H. (2002). A single dose of methamphetamine rescues the blunted dopamine D1 receptor activity in the neocortex of D2- and D3-receptor knockout mice. In: Cellular and Molecular Mechanisms of Drugs of Abuse II: Cocaine, GHB, Ibogaine, and Substituted Amphetamines. Syed F. Ali [Ed]. *Ann. New York Acad. Sci.* **965**: 21-27.
- Schmauss,C. & Howe,J.R. (2002). RNA editing of neurotransmitter receptors in the mammalian brain. *Science 's STKE* (2002); [http://www.stke.org/cgi/content/full/OC\\_sigtrans;2002/133/pe26](http://www.stke.org/cgi/content/full/OC_sigtrans;2002/133/pe26) (Review/Perspective)