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Personal Data

Name: Mohamed A. Elwan
Birth date: July 24, 1960
Birthplace: Egypt
Nationality: Egyptian
Marital status: Married, 2 children

Qualification

- 1995 **Ph.D.** in Pharmacology, Entitled "*Interaction Between Cholinergic and Dopaminergic Transmission at Central and Peripheral Sites*" under the joint supervision of Dept. of Pharmacology, College of Pharmacy & Pharmaceutical Sciences, Florida A&M Univ. USA, and Dept. of Pharmacology, Faculty of Pharmacy, Univ. of Alexandria, Egypt.
- 1990 **MSc.** in Pharmacology, Entitled "*Interaction Between Insecticides and Antidiabetic Drugs*" Dept. of Pharmacology, Faculty of Pharmacy, Univ. of Alexandria, Egypt.
- 1983 **B. Pharm. Sci.** with general grade *Distinction Honor*, Faculty of Pharmacy, Univ. of Alexandria, Egypt.

Research Experience

1. Research Scholar (2002-2003), Center for Neurodegenerative Disease, Department of Neurology, Emory University School of Medicine, Atlanta, GA, **USA**.
2. Research Fellow (2001–2002), Division of Pharmacology & Toxicology, Faculty of Pharmacy, University of Texas at Austin, Austin, TX, **USA**.
3. Visiting Scientist (2001), National Institute of Neuroscience, NCNP, Tokyo, **Japan**.
4. Visiting Scientists (2000), National Institute of Neuroscience, NCNP, Tokyo, **Japan**.
5. Research Fellow of the Science and Technology Agency (STA), Japan, (1999), National Institute of Neuroscience, NCNP, Tokyo, **Japan**.
6. Full-time postdoctoral fellow (1997-1999), National Institute of Neuroscience, NCNP, Tokyo, **Japan**.
7. Full-time Ph.D. Student (1993-1995), College of Pharmacy and Pharmaceutical Sciences, Florida A&M University, Florida, **USA**.
8. Full-time M.Sc. Student (1986-1990), Department of Pharmacology, Faculty of Pharmacy, University of Alexandria, **Egypt**.

Academic Employment

08/03-Present	Professor of Pharmacology & Therapeutics, Oman Pharmacy Institute, Muscat, Oman.
07/02-06/03	Research Scholar, Emory University School of Medicine, Atlanta, GA, USA.
12/01-6/02	Research Fellow, Faculty of Pharmacy, University of Texas at Austin, Austin, TX USA.
06/01-10/01	Visiting Scientist, National Institute of Neuroscience, NCNP, Tokyo, Japan.
01/01-06/01	Associate Professor of Pharmacology & Toxicology, Faculty of Pharmacy, Alexandria Univ., Alexandria, Egypt

10/00-12/00	Assistant Professor of Pharmacology & Toxicology, Faculty of Pharmacy, Alexandria Univ., Alexandria, Egypt.
07/00-09/00	Visiting Scientist, National Institute of Neuroscience, NCNP, Tokyo, Japan.
01/00- 07/00	Assistant Professor of Pharmacology and Toxicology, Faculty of Pharmacy, Alexandria Univ., Alexandria, Egypt.
10/99-12/99	Science and Technology Agency (STA) research fellow, National Institute of Neuroscience, NCNP, Tokyo, Japan.
04/99-09/99	Assistant Professor of Pharmacology and Toxicology, Faculty of Pharmacy, Alexandria Univ., Alexandria, Egypt.
04/97-03/99	Post-doctoral research fellow, National Institute of Neuroscience, NCNP, Tokyo, Japan.
10/95-03/97	Lecturer of Pharmacology and Toxicology, Faculty of Pharmacy, Alexandria Univ., Alexandria, Egypt.
01/90-10/95	Assistant lecturer of Pharmacology, Toxicology, and Biological evaluation of drugs, Faculty of Pharmacy, Alexandria Univ., Alexandria, Egypt.
01/85-01/90	Instructor of Pharmacology, Faculty of Pharmacy, Alexandria Univ., Alexandria, Egypt.

Skills

- Animal care and handling for *in-vivo* and *in-vitro* experiments
- Small animal surgery & blood sample collection
- Drug administration via different routes.
- Tissue bath experiments; frog's heart, rabbit intestine, guinea pig ileum, rat phrenic hemidiaphragm, rabbit rectococcygeus, mouse and rat vas deferens, chick biventer cervicis.
- Blood pressure, heart rate and force displacement recordings.
- Cell culture.
- Radioligand binding (DA receptors, DAT & VMAT2, Opioid receptors)
- Rat brain dissection (gross anatomy)
- Instrumentation (HPLC-ECD, Gamma counters, Liquid scintillation counters, Centrifuges & Ultracentrifuges, Spectrophotometers, Electrophoresis, Cell harvesters, Sonicators, Homogenizers, and Force Displacement Transducers & Polygraphs).
- Word processing, and Statistics & Graphical Presentation Software.

Teaching Jobs

1. Curriculum Development: Active participation in the development of curriculum at Oman Assistant Pharmacy Institute (now Oman College of Health Science).

Responsibilities included contribution in:

- a. Establishing the *Policies & Procedures* regulating the Teaching & Learning processes at the pharmacy program in Oman.
- b. Authoring & Organizing the curriculum of (1) Basic Biology, (2) Anatomy & Physiology for Pharmacy Students, (3) Pharmacology, (4) Pharmacotherapeutics, and (5) Clinical Toxicology courses.

2. Teaching: Active participation in teaching the *Practical* sessions & *Theoretical* lectures of the above mentioned courses.

3. Lectures for Pharmacists Continuing Education Program in Egypt & in Oman

Topics included: Biotechnology: An Overview of Medical Application, Addiction to Psychostimulants, Parkinson's Disease Management: Past, Present & the Future, Diabetes Mellitus: Etiology, Diagnosis & Management, Contraceptives: benefits & risks, Role of Pharmacist in Safe and Effective Medication Use,

Male Sex Hormones & Anabolic Steroids, Female Sex Hormones: I. Estrogens, Female Sex Hormones: II. Progestins, Anterior Pituitary Hormones: Gonadotropins, Melatonin: Fact or Fiction, Incretins-based DM Therapies, Insulin Analogs: Why & How they were made?

Awards and Honors

1. University of Alexandria award for Scientific Encouragement (1999).
2. Japanese Science and Technology Agency (STA) Fellowship award (1999).
3. University of Alexandria Students Union's award for Scientific Distinction (1983).
4. Egyptian Pharmaceutical Companies' Award for top rank graduates in Pharmaceutical Sciences (1983).

Scientific Meetings Attended

1. 6th Pharmaceutical Care Conference, 3-4 Feb 2016, Muscat, Oman.
2. 5th Pharmaceutical Care Conference, 11-12 Feb 2015, Muscat, Oman.
3. Experimental Biology Meeting, April 11-15, 2003, San Diego, CA, USA
4. Society for Neuroscience 32nd Annual Meeting, November 2-7, 2002, Orlando, FL, USA.
5. Japanese Society for Neurochemistry 44th Meeting, September 26-28, 2001, Kyoto, Japan.
6. Japanese Society for Neurochemistry 41st Meeting, September 21-23, 1998, Tokyo, Japan.
7. Japanese Pharmacological Society 71st Meeting, March 23-26, 1998, Kyoto, Japan.
8. Japanese Society for Neurochemistry 40th Meeting, October 22-24, 1997, Matsuyama, Japan.
9. Experimental Biology Meeting (FASEB), April 13-17, 1996, Washington D.C., USA.
10. Experimental Biology Meeting (FASEB), April 9-13, 1995, Atlanta, GA, USA.
11. Experimental Biology Meeting (FASEB), April 24-28, 1994, Anaheim, CA, USA.

Memberships

1. Japanese Pharmacological Society (1997-1999)
2. Japan Society for Neurochemistry (1997-1999).
3. Egyptian Syndicate of Pharmacists (1983-Present).
4. Oman Pharmaceutical Society (2007-Present)

PUBLICATIONS

International Peer-Reviewed Research Papers

1. **Elwan MA** & Sakuragawa N: Uptake and decarboxylation of L-3,4-dihydroxyphenylalanine in cultured monkey placenta amniotic epithelial cells. *Placenta*. 28(2-3):45-48 (2007).
2. **Elwan MA**, Richardson JR, Guillot TS, Caudle WM & Miller GW: Pyrethroid pesticide-induced alterations in dopamine transporter function. *Toxicol Appl Pharmacol*. 211(3):188-197 (2006).
3. **Elwan MA**, Ishii T & Sakuragawa N: Evidence of dopamine D₁ receptor mRNA and binding sites in cultured human amniotic epithelial cells. *Neurosci. Lett* 344:157-160 (2003).
4. **Elwan MA**, Ishii T & Sakuragawa N: Characterization of dopamine D₂ receptor gene expression and binding sites in human placenta amniotic epithelial cells. *Placenta* 24:658-663 (2003).
5. **Elwan MA**, Ishii T & Sakuragawa N: Characterization of the dopamine transporter gene expression and binding sites in cultured human amniotic epithelial cells. *Neurosci Lett* 342:61-64 (2003).

6. Metzger RR, Brown JM, Sandoval V, Rau KS, **Elwan MA**, Miller GW, Hanson GR & Fleckenstein AE: Inhibitory effect of reserpine on dopamine transporter function. *Eur J Pharmacol* 456:39-43 (2002).
7. **Elwan MA** & Sakuragawa N: Uptake of dopamine by cultured monkey amniotic epithelial cells. *Eur J Pharmacol* 435:205-208 (2002).
8. Sakuragawa N, **Elwan MA**, Uchida S, Fujii T & Kawashima K: Non-neuronal neurotransmitters and neurotrophic factors in amniotic epithelial cells: expression and function in humans and monkey. *Jpn J Pharmacol* 85:20-23 (2001).
9. Kakishita K, **Elwan MA**, Nakao N, Itakura T & Sakuragawa N: Human amniotic epithelial cells produce dopamine and survive after implantation into the striatum of a rat model of Parkinson's disease: A potential source of donor for transplantation therapy. *Exp Neurol* 165:27-34 (2000).
10. **Elwan MA** & Sakuragawa N: Characterization of [³H]mazindol binding sites in cultured monkey amniotic epithelial cells. *Neurosci Lett* 279:37-40 (2000).
11. Sakuragawa N, **Elwan MA**, Fujii T & Kawashima K: Possible dynamic neurotransmitter metabolism surrounding the fetus. *J Child Neurol* 14:265-266 (1999).
12. **Elwan MA**, Ishii T & Sakuragawa N: detection of dopamine D2 receptor mRNA and binding sites in monkey amniotic epithelial cells. *J Neurosci Res* 56:316-322 (1999).
13. **Elwan MA**, Ishii T, Ono F & Sakuragawa N: Evidence for the presence of dopamine D1 receptor mRNA and binding sites in monkey amniotic epithelial cells. *Neurosci Lett* 262:9-12 (1999).
14. **Elwan MA**: Synthesis of dopamine from L-3,4-dihydroxyphenylalanine by human amniotic epithelial cells. *Eur J Pharmacol* 254:R1-R2 (1998).
15. **Elwan MA**, Thangavel R, Ono F & Sakuragawa N: Synthesis and release of catecholamines by cultured monkey amniotic epithelial cells. *J Neurosci Res* 53:107-113 (1998).
16. **Elwan MA** & Sakuragawa N: Evidence for synthesis and release of catecholamines by human amniotic epithelial cells. *NeuroReport* 8:3435-3438 (1997).
17. Sakuragawa N, Misawa H, Ohsugi K, Kakishita K, Ishii T, Thangavel R, Tohyama J, **Elwan MA**, Yokoyama Y, Okuda O, Arai H, Ogino I & Sato K: Evidence for active acetylcholine metabolism in human amniotic epithelial cells: applicable to intracerebral allografting for neurologic disease. *Neurosci Lett* 232:53-56 (1997).
18. **Elwan MA**, Soliman MRI, Ghazal AM & Sharabi FM: Modulation of parasympathetic transmission by dopaminergic agents in the field-stimulated guinea pig isolated ileum. *Alex J Pharm Sci* 10:196-173 (1996).
19. **Elwan MA** & Soliman MRI: Changes in methionine-enkephalin levels in specific rat brain regions following repeated treatment with selective dopaminergic agonists and antagonists. *Life Sci* 58:37-45 (1996).
20. **Elwan MA** & Soliman MRI: Alteration of D1 and D2 dopaminergic receptor kinetics in specific rat brain regions following repeated administration of opiates. *Pharmacology* 51:73-83 (1995).

Published Abstracts

1. **Elwan MA**, Caudle WM, Richardson JR, Miller GW. Effect of pyrethroids on dopamine uptake in SK-N-MC cells expressing the dopamine transporter. Experimental Biology Meeting, April 11-15, 2003, San Diego, CA, USA.
2. Caudle WM, Tillerson JT, Rho O, **Elwan MA**, Rye DB, Miller GW. Diurnal changes in terminal dopamine transporter protein expression in the striatum without changes in dopamine uptake. Society for Neuroscience 32nd Annual Meeting, November 2-7, 2002, Orlando, FL, USA
3. **Elwan MA** and Sakuragawa N: Uptake of dopamine by cultured monkey amniotic epithelial cells. The 44th Annual Meeting of the Japanese Society for Neurochemistry, Kyoto, Japan, September 26-28, 2001.
4. **Elwan MA**: Confirmation of active catecholamine synthesis by human amniotic epithelial cells: effect of enzyme inhibitors. The 41st Annual Meeting of the Japanese Society for Neurochemistry, Tokyo, Japan, September 21-23, 1998. Abstract No. 37, *Neurochem Res* 24:917 (1999)
5. Kakishita K, Nakao N, **Elwan MA**, Sakuragawa N, Nakai K and Itakura T: Further evidence for catecholamine synthesis by human amniotic epithelial cells: a possible candidate for a donor of intracerebral allografting to treat neurodegenerative disease. The 41st Annual Meeting of the Japanese Society for Neurochemistry, Tokyo, Japan, September 21-23, 1998. Abstract No. 174, *Neurochem Res* 24:949 (1999)
6. **Elwan MA** and Sakuragawa N: Monkey amniotic epithelial cells synthesize and release catecholamines. The 71st Annual Meeting of the Japanese Pharmacological Society, Kyoto, Japan, March 23-26, 1998. Abstract No. P-259, *Jap J Pharmacol* 76(Suppl 1):197P (1998).
7. Sakuragawa N, **Elwan MA**, Fujii T and Kawashima K: Presence of acetylcholine and catecholamines in human amniotic fluid and amniotic fluid cells. The 27th Annual Meeting of Child Neurology Society, Montreal, Quebec, Canada, October 21-24, 1998. Abstract No. A63, *Annal Neurol* 44:564 (1998).
8. Sakuragawa N, Ohsugi K, **Elwan MA** and Kakishita K: Human amniotic epithelial cells with active synthesis and release of acetylcholine and catecholamines: possible gene carrier for intracerebral grafting to treat neurodegenerative diseases. The 4th Annual Meeting of the Japan Society of Gene Therapy, Tokyo, Japan, July 4-5, 1998. Abstract No. 105, pp133.
9. Sakuragawa N, **Elwan MA** and Kakishita K: Active synthesis and release of acetylcholine and catecholamines by human amniotic epithelial cells: potential candidates for transplantation of genetically modified cells to treat neurodegenerative diseases. The 1st Annual Meeting of the American Society of Gene Therapy, Seattle, Washington, USA, May 28-31, 1998. abstract No. 625, pp157a.
10. **Elwan MA** and Sakuragawa N: Evidence for synthesis and release of catecholamines by cultured human amniotic epithelial cells. The 40th Annual Meeting of the Japanese Society for Neurochemistry, Matsuyama, Japan, October 22-24, 1997. Abstract No. 215, *Neurochem Res* 24:161 (1999).
11. **Elwan MA** and Soliman MRI: Effect of single and repeated administration of cholinergic agonists on norepinephrine levels in specific rat brain regions. Pharmacology '97 Meeting, San Diego, CA, USA, March 7-11, 1997. Abstract No. 441, *The Pharmacologist*, 39:102 (1997).

12. Ghazal AM, Abou Zeit-Har MS and **Elwan MA**: Effect of some insecticides on the rat response to the antidiabetic drug glibenclamide. EUROTOX'96, Alicante, Spain, September 22-25, 1996.
13. Ghazal AM, **Elwan MA**, Sharabi FM and Soliman MRI: Alterations in D1 and D2 receptor binding sites in specific rat brain regions following repeated treatment with cholinergic agonists. Experimental Biology Meeting (FASEB), Washington D.C., USA, April 14-17, 1996.
14. **Elwan MA**, Ghazal AM, Sharabi FM and Soliman MRI: Alterations of Mu- and Kappa-opioid receptor binding in specific rat brain regions following repeated administration of selective dopamine agonists. Experimental Biology Meeting (FASEB), Washington D.C., USA, April 14-17, 1996.
15. Soliman MRI, **Elwan MA**, Sharabi FM and Ghazal AM: Opiates-induced alterations in dopaminergic D3 receptors in specific rat brain regions. Experimental Biology Meeting (FASEB), Atlanta, GA, USA, April 9-13, 1995.
16. **Elwan MA**, Ghazal AM, Sharabi FM and Soliman MRI: Modulation of cholinergic transmission by dopaminergic agents in the isolated, field-stimulated guinea pig ileum. Experimental Biology Meeting (FASEB), Atlanta, GA, USA, April 9-13, 1995.
17. **Elwan MA**, Ghazal AM, Sharabi FM and Soliman MRI: Effects of cholinergic agents on catecholamine levels in specific rat brain regions. Experimental Biology Meeting (FASEB), Anaheim, CA, USA, April 24-28, 1994.
18. Ghazal AM, Abou Zeit-Har MS and **Elwan MA**: Interaction between glibenclamide and endrin. Third World Conference on environmental and health Hazards of Pesticides, Cairo, Egypt, December 11-15, 1989.

References

- 1) Dr. Gary W. Miller, Center for Neurodegenerative Disease, Emory University School of Medicine, Atlanta, GA 30322, USA. Phone: (404) 712-8582, Fax: (404) 727-3728. Email: gwmille@emory.edu
- 2) Dr. Norio Sakuragawa, Department of Regenerative Medicine, Kitazato University School of Medicine, SIC-2, No. 302, Sagamihara, Kanagawa-ken, 229-1131, Japan. Email: sakura_in4533@ybb.ne.jp
- 3) Dr. Abdel-Galil A. Abdel-Galil, Professor of Pharmacology and Toxicology, Faculty of Pharmacy, University of Alexandria, Egypt, Phone: +2(03) 487 1317, Fax: +2(03) 487 3273. Email: abdelgalil39@yahoo.com.
- 4) Dr. A.M. Ghazal, Professor of Pharmacology and Toxicology, Faculty of Pharmacy, University of Alexandria, Egypt, Phone: +2(03) 487 1317, Fax: +2(03) 487 3273.