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Date of Birth: 27th April, 1972.

Place of Birth: Gangtok, India.

Marital Status: Married.

Nationality: Indian.

Languages known: English and Hindi

Teaching Experience

Currently working in the position of an Assistant Professor in the Department of Zoology, Women's Section at King Saud University, Riyadh since November 2007.

- During the tenure at KSU have taught the following courses:

- ❖ *Doctorate level_*

- ZOO-621 (Advanced Aquatic Fauna),
- ZOO-623(Advances in nutrient requirements of Fish),
- ZOO-Advances in Fish Physiology.
- ZOO-673(Advances in Aquatic Ecology).
- ZOO-671 (Advances in Animal Ecology and Pollution)
- ZOO-635 (Advanced Animal Behavior)

- ❖ *Master's level-* ZOO-521 (Aquatic biology) ZOO-529(Fish Farming)
ZOO-571 (Animal Ecology and Pollution) ZOO-572 (Animal Conservation) ZOO-528 (Fishery Resources)

- ❖ *Undergraduate level*

- ZOO-499 (Research Methodology)
- ZOO-453 (Environmental Pollution and Protection)
- ZOO-374(Aquatic Ecology)
- -ZOO-106 (Introduction to Zoology)

- **ZOO-145 (Introduction to Zoology){current}**

- Have taught Biology for the I.G.C.S.E. curriculum from May 2002 – October 2007 in Middle East International School (Asian Section) Riyadh – Saudi Arabia.

Taught students of O' Levels and for AS Level (GCE – Edexcel)

- **Taught courses in Aquaculture Engineering, Fish Disease and Diagnosis, Limnology and Marine Biology for the B.FSc. (fisheries) Programme at G.B. Pant University of Agriculture and Technology, Pantnagar during the academic session –April-November, 2001.**
- **Taken practical courses for the M.S.c. Fisheries Programme (Fish Nutrition, Fish 527 and Capture Fisheries, Fish 525) at Punjab Agricultural University, Ludhiana during 2000 – 2001.**
- **Taught a basic course in Fisheries (Fish Culture, Fish 301) for the B.S.c. Agriculture Programme at Punjab Agricultural University, Ludhiana during 1999 – 2001.**

Academic Qualifications

- Passed **Ph.D. Fisheries** – Punjab Agricultural University, Ludhiana in **November 2000** with first division.
- Passed **M.Sc. Zoology** - (Honours School) from Panjab University, Chandigarh in **May 1995** with first division.
- Passed **B.Sc** from Maharshi Dayanand Saraswati University at Sophia Girls College, Ajmer in March 1993 with first division.
- Passed **Senior Secondary** (Plus Two), Himachal Pradesh Board of School Education from St. Bede's College, Shimla in **March 1990** with first division.
- Passed the Indian Certificate of Secondary Education (10th Std.), New Delhi Board from St. Mary's Convent, Nainital in **March 1988** with first division.

Research Experience

- M.S.c. – 1 Year – 1995.
- *Title of Thesis: "Toxic effects of organo chlorine pesticide, Endosulfan on the ovary of Heteropneustes fossilis (Bloch)."*
- Name of Supervisor: Dr. M.L. Sareen (Professor), Dept. Of Zoology, Punjab University, Chandigarh.
- Ph.D. – 3 Years – 1998 – 2000.
- *Title of Thesis: "Studies on the utilization of non-conventional feed resources in fish feed."*
- Name of Supervisor: Dr. P.K. Saxena (Professor), Dept. Of Fisheries, Punjab Agricultural University, Ludhiana.
- Research Fellow: From 24-08-1999 – 05-03-2001.
- ICAR Scheme: *"Use of agro-industrial by-products in cost-effective carp*

feed”.

- Have been actively working in the field of Environmental Biology and Toxicology since **2012** in the Research projects funded by the Research Centre at King Saud University, Riyadh.

List of Publications

2017

- 1) **Promy Virk (2017)**. Antidiabetic Activity of Green Gold - Silver Nanocomposite with *Trigonella foenum graecum* L. Seeds Extract on Streptozotocin-Induced Diabetic Rats. *Pakistan Journal of Zoology*.(Accepted).
- 2) **Promy Virk**, Mai Elobeid, Manal A Awad, Awatif A Hendi,Khalid MO Ortashi, Muzammil Iqbal Siddiqui (2017). Characterization of Nanorosemary and Encapsulated Rosemary Nanoparticles and their Effect on the Lead Induced Toxicity in Wistar Rats. *Journal of Environmental Biology*. (Accepted).

2016

- 1) Aminah Ali Al-Sakran, **Promy Virk**, Sherifa Shaker Hamad, Mai Elobeid, Muzammil Iqbal Siddiqui, Sawson Omer, Nada Mohammed Mirghani(2016). Histopathological Effects on the Testis and Liver of Adult Male Carp *Cyprinus carpio carpio* exposed to graded concentrations of waterborne Bisphenol A. *Tropical Journal of Pharmaceutical Research*.15 (1): 73-80

2015

- 1) Khadiga G. Adham, Manal H. Farhood, Maha H. Daghestani,Nadia A. Aleisa, Ahlam A. Alkhalifa, Maha H. El Amin, **Promy Virk**,Mai A. Al-Obeid and Eman M. H. Al-Humaidhi(**2015**). Metabolic Response To Subacute And Subchronic Iron Overload In A Rat Model. *Acta Biologica Hungarica* 66(4): 361–373.
- 2) Wedaad Saeed AlQahtani and **Promy Virk (2015)**. Effect of calcium supplementation on lead-induced genotoxicity and bioaccumulation in suckling Wistar rats. *Toxicological & Environmental Chemistry*. DOI: 10.1080/02772248.2015.1070853.To link to this article: <http://dx.doi.org/10.1080/02772248.2015.1070853>
- 3) Weddad Refaiea Al-Otaibi, **Promy Virk**, Mai Elobeid (**2015**). “Ameliorative potential of stem bromelain on lead-induced toxicity in Wistar rats”*Acta Biologica Hungarica* 66 (2): 149-160.
- 4) Maryam El-Enazy ,**Promy Virk**, Mai Elobeid and Muzammil Iqbal Siddiqui (**2015**) Ameliorative effects of Rosmarinus officinalis leaf extract and Vitamin C on Cadmium-Induced Oxidative Stress in Nile Tilapia, *Oreochromis niloticus*. *Journal of Environmental Biology* 36:1401-1408.

2014

- 1) **Promy Virk**, Amena Ali M Al-Sakran, Mai A Elobeid. Effect of Bisphenol A on the Levels of Vitellogenin and Metallothionein in Adult Male Carp, *Cyprinus carpio carpio* Linnaeus, 1758. Accepted in *Tropical Journal of Pharmaceutical Research*. 13 (7): 1107-1112.
- 2) Sawsan Ali Omer, Mai A Elobeid, Maha ElAmin, **Promy Virk**, Maha Dagestani, Nadia AlEisa, Reem AlAjami, Ebtisam AlOlayan, Albandary AlRajeh, Amira AlMahasna. 2014. Effect of various level of dietary *Commiphora myrrha* on rats. *Wulfenia* 21(2), 150-161.
- 3) **PromyVirk**, Muzzammil Iqbal Siddiqui, Mai Elobeid, Maha El-Amin, Ebtisam Al-Olayan, Sawson Ali Omer. 2014. Incidence and Histopathology of *Clinostomum tilapiae* and *Cichlidogyrus tilapiae* in cultured tilapia, *Oreochromis niloticus* from Saudi Arabia. *Wulfenia*. 21(2), 38-49.

2013

- 4) Mai A Elobeid, **Promy Virk**, Muzzammil I Siddiqui, Sawsan A Omer, Maha ElAmin, Zeinab Hassan, Zenaib M Almarhoon, Nada Merghani, Amira AlMahasna, Maha Daghestani, Ebtisam AlOlayan. 2013. Antihyperglycemic Activity and Body weight effects of Extracts of *Embllica officianalis*, *Tamarix nilotica* and Cinnamon Plant in Diabetic Male Rats. *Wulfenia*. 20 (11), 18-31.
- 5) Manal A. Awad, Nada M. Merghani, Dalia F. AElradi, Khalid M. Ortashi, Awatif A. Hendi, Nada E. Eisa, Muzammil Siddiqui, **Virk P**, Mai A. Elobeid. 2013. Eco Friendly Gold Nanorods, Novel Approach: Preparation, Characterization, Antibacterial Agent. *Wulfenia*, 20 (11), 311-321.
- 6) **Promy Virk**, Mai A. Elobeid, Sherifa Hamad, Zainab Korany, Maha Al-Amin, Maha Daghestani, Sawsan Omer, Ebtisam AlOlayan, Muzammil Iqbal Siddiqui and Nada Mohammed Mirghani. 2013. Ameliorative effects of *Embilica officinalis* and *Rosmarinus officinalis* on cadmium-induced oxidative stress in Wistar rats. *Journal of Medicinal Plants Research*. 7(14), 805-818.
- 7) Zeinab K Hassan, Maha H Elamin, Sawsan Omer, Maha Daghestani, Ebtesam Al-Olayan, Mai A Elobeid, **Promy Virk**. 2013. Oleuropein induces apoptosis via p53 pathway on breast cancer cells. *Asian Pacific J Cancer Prev, Asian Pac J Cancer Prev*, 14 (11):6739-6742.
- 8) Maha El Amin, **Promy Virk**, Mai A Elobeid, Zainab Mohammed Almarhoon, Zeinab Korany Hassan, Sawsan Ali Omer, Nada Mohammed Merghani, Maha Hassan Daghestani and Ebtisam Mohammed Al Olayan. 2013. Anti-diabetic effect of *Murraya koenigii* (L) and *Olea europaea* (L) leaf extracts on streptozotocin induced diabetic rats. *Pak. J. Pharm. Sci.* 26 (2), 359-365.
- 9) Maha H. Elamin, Maha H. Daghestani, Sawsan A. Omer, Mai A Elobeid, **Promy Virk**, Ebtesam M. Al-Olayan, Zeinab K. Hassan, Osama B. Mohammed, Abdelilah Aboussekhra. 2013. Olive oil oleuropein has anti-breast cancer properties with higher efficiency on ER-negative cells. *Food and Chemical Toxicology*. 53:310-316.
- 10) Maha H. Elamin, Zeinab K. Hassan, Sawsan A. Omer, Maha H. Daghestani, Ebtesam M. Al-Olayan, **Promy Virk**, Mai A Elobeid and Osama B. Mohammed. 2013. Apoptotic and antiproliferative activity of olive oil hydroxytyrosol on breast cancer cells. *Journal of Medicinal Plants Research*. 7 (32), 2420-2428.

2012

- 11) Zeinab K Hassan, Maha H Elamin, Maha H Daghestani, Sawsan A Omer, Ebtesam M Al-Olayan, Mai A Elobeid, **Promy Virk**, Osama B Mohammed. 2012. Oleuropein Induces Anti-metastatic Effects in Breast Cancer. *Asian Pacific J Cancer Prev.* 13(9), 4555-4559.
- 12) Mai A Elobeid, Zainab M Almarhoon, **Promy Virk**, Zeinab K Hassan, Sawsan Ali Omer, Maha ElAmin, Maha H. Daghestani, Ebtisam AlOlayan. 2012. Biphenol A Detection in Various Brands of Drinking Bottled Water Using Gas Chromatography Mass Spectrometer in Riyadh, Saudi Arabia. *Tropical Journal of Pharmaceutical Research.* 13(3), 455-459.
- 13) Sawsan A. Omer, Mai A. Elobeid, M.H. Elamin, Z K. Hassan, **P. Virk**, M.H. Daghestani, Ebtisam Al-Olayan, Nadia A. Al-Eisa, Z M Almarhoon. 2012. Toxicity of Olive Leaves (*Olea europaea*) in Wistar Albino Rats. *Asian Journal of Animal and Veterinary Advances.* 7(11), 1175-1182.
- 14) Zeinab K. Hassan, Mai A. Elobeid, **Promy Virk**, Sawsan A. Omer, Maha ElAmin, Maha H. Daghestani, and Ebtisam M. AlOlayan. 2012. Bisphenol A Induces Hepatotoxicity through Oxidative Stress in Rat Model. *Oxidative Medicine and Cellular Longevity.* 2012, 194829-194835. doi:10.1155/2012/194829.
- 15) Sawsan A. Omer, Mai A. Elobeid, Dalia Fouad, Maha H Daghestani, Ebtesam Al-Olayan, Maha H. Elamin, **Promy Virk**, Ameera El-Mahassna. 2012. Cadmium Bioaccumulation and Toxicity in Tilapia Fish (*Oreochromis niloticus*). *Journal of Animal and Veterinary Advances.* 11(10), 1601-1606.
- 16) Maha Hasan Daghestani, **Promy Virk** and Ayman EL-Meghawry EL-Kenawy.(2012) Metabolic and Histological Effects of Different Polyunsaturated Fat Types in the Diet: Omega-3 and Omega-6. *Pak. J. Nutr.*, 11 (4): 313-321

2011, 2004, 2003

- May Naser Joma, **Promy Virk**, and Mai A Elobeid. (2011). Cytochrome P450 as a Biomarker of Benzo-a-Pyrene Pollution in Tilapia (*Oreochromis niloticus*) and Catfish (*Pangasius sutchi*). *International Journal of Environmental Science and Engineering Research.* 2 (1), 15-22.
- **Virk,P.** and Saxena,P.K (2003) Potential of *Amaranthus* seeds in supplementary feed and its impact on growth in some carps. *Bioresource Technology* 86(2003) 25-27.
- Dhawan ,A., Kaur, V .I and **Virk,P** (2004) Non-conventional fish feed resources: An overview . *The International Collective in Support of Fishworkers (ICSF)* 23: 10 - 11. January-February.

Patents- Published / Filed in the US patent office

- 1) Method of preparing Rosemary Nanoparticles and Encapsulated Rosemary Nanoparticles. 28-5-2015. Manal Ahmed GasmAlSeed Awad, , Awatif Ahmed Hindi, **Promy Virk**, , Mai AbdelRahman Elobeid Wagealla. **Publication number US9480656 B1.** <https://www.google.com/patents/US9480656>

2) Synthesis of Narangen Nanoparticles. 16-2-2016. **Promy Virk**, Nouf Abdullah Mureet AlGhamdi, Manal Ahmed GasmAlSeed Awad, Mai AbdelRahman Elobeid Wagealla, Awatif Ahmed Hindi, Lulwah Saleh Mohammed AlHassan

3) Synthesis of Hesperetin Nanoparticles. 16-2-2016. Mai AbdelRahman Elobeid Wagealla, Lulwah Saleh Mohammed AlHassan, Manal Ahmed GasmAlSeed Awad, Nouf Abdullah Mureet AlGhamdi, **Promy Virk**, Awatif Ahmed Hindi, Patent Law Building, Manassas, VA, USA.

4) Synthesis of Nanoparticles of Metals Metal Oxide using Plant Seeds Extract. 28-9-2015. Manal Ahmed GasmAlSeed Awad, Awatif Ahmed Hindi, Mai AbdelRahman Elobeid Wagealla, Khalid Mustafa Osman Ortashi, **Promy Virk. Patent number: 9428399**

5) Method of Treating Diabetic Wounds using Biosynthetic Nanoparticles. 7-10-2015. Manal Ahmed GasmAlSeed Awad, Awatif Ahmed Hindi, Mai AbdelRahman Elobeid Wagealla, **Promy Virk**, Khalid Mustafa Osman Ortashi.

6) Fish food composition. April 11, 2016. Muzzammil Iqbal Siddiqui, **Promy Virk**, Mohammad Iqbal Siddiqui. **Patent number: 9560866**

Seminars / Symposia

- ❖ Presented a paper in the **National Symposia on Fish Health Management and Sustainable Aquaculture. G.B. Pant University of Agriculture and Technology, Pantnagar, November 2000.**
- ❖ Presented a paper titled, "Effect of Calcium Supplementation on Lead-Induced Genotoxicity and Bioaccumulation in Suckling Wistar Rats" in **The 7th International Conference on Environmental Science and Technology, 2014, Houston, Texas, USA, June 9-13, 2014.**

➤ Also chaired a session on **Human Exposure in the same conference.**

Awards / Merits

- **University Merit Fellowship** during 1997 – 1999.
- **Certificate of Appreciation** for paper presentation in the National Symposium on Fish Health management and Sustainable Aquaculture at G.B. Pant University of Agriculture and Technology, Pantnagar.

Supervision

- **Supervised** the Master's thesis titled 'Effect of Bisphenol A on the Levels of Vitellogenin and Metallothionein in Adult male Carp, *Cyprinus carpio*.
- **Supervised** the Master's thesis titled 'Ameliorative Potential of Ascorbic Acid and Rosemary Leaf Extract on Cadmium-Induced Oxidative Stress in Nile Tilapia, *Oreochromis niloticus*.

- **‘An Assessment of the Estrogenic Potency of the Effluent from a Saudi Sewage Treatment Plant and its Reproductive Effects on freshwater fish, Koi carp (*Cyprinus carpio carpio*)’.**
- **‘Antioxidant Potential of Bulk and Nanoparticles of Naringenin Against Cadmium-Induced Oxidative Stress in Nile Tilapia, *Oreochromis niloticus*’**
- **Co-supervised the Master’s thesis titled ‘Effect of benzo-a-pyrene on the cytochrome p450 oxidase activity in Nile tilapia’.**
- **Co-supervised the Master’s thesis titled ,’Physiological Response of the Wild Rat,*Rattus rattus* to Metal Pollution’.**
- **Co-supervised the Master’s thesis titled ,’Effects of Prenatal Exposure to Different Doses of Bisphenol A on Fertility of Male Rats.’**

Workshops

- Conducted the following Workshops in the Department of Zoology:
- **Conducted a lecture during the workshop on “Basics of Nano Technology” for Princess Nora University students held at the Department of Zoology, Faculty of Science, King Saud University. 20/4/2015.**
- **Assessment of Water Quality Parameters- 29th January 20013**
- **Analytical Techniques and Environmental Samples Analysis- 30th January 2013**

Others

- ❖ **Worked as a Co-I in a project funded by the National Plan for Science and Technolog ,’Role of Oleuropin and Hydroxytyrosol in breast cancer Prevention and Treatment’**
- ❖ **Rapporteur/ Member of the following Department Committees:**
 - Scientific Research
 - Lab maintenance and Purchase
 - Cultural and Information
 - Lab Safety
 - Quality Assurance
 - Accreditation

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