Smadar Tal Curriculum Vitae

August 13, 2025

A. Personal Details

- Full name: Smadar Tal.
- Citizenship: Israeli, Canadian.
- Family status: married + 4.
- Full home address: 4 Hameitar street, Ramat-Gan, Israel.
- Home & cellular phone #: 972-3-5795665; mobile: 972-50-8989060.
  Work: A - Tel-Hai Academic College, D.N. Hagalil Haelyon, 12210, Israel; phone: 972-4-8181717. B - Koret School of Veterinary Medicine, The Robert H. Smith Faculty of Agricultural, Food & Environment, The Hebrew University of Jerusalem, P.O.Box 12, Rehovot 76100, Israel; phone: 972-3-9688588.
  E-mail address: smadartal@telhai.ac.il; smadar.tal@mail.huji.ac.il

B. Higher Education

- 2017 - 2023: Ph.D. in animal reproductive biology and genetics, Koret School of Veterinary Medicine, the Robert H. Smith Faculty of Agricultural, Food & Environment, Hebrew University of Jerusalem, Israel. Supervisor: Prof. Gila Kahila Bar-Gal.
- November 2014: Diplomate of the European College for Animal Reproduction (subspecies small animals).
- 2008 - 2011: Diplomate of the American College of Theriogenologists.
  Supervisors: Prof. Cathy Gartley (principal) and Dr. Tracey Chenier. Department of population medicine. Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada.
- 1987 - 1988: M Sc. (not completed). Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada. Department of Veterinary Microbiology and Immunology. Research subject: Construction of a modified live vaccine strain of infectious Laryngotracheitis virus, using molecular genetic techniques. Supervisor: Dr. Eva Nagy.

- 1987 - 1992 Doctor of Veterinary Medicine. Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada**. Graduated with Honors**.
- 1984 - 1987 B.Sc. in Biology. The Hebrew University, Jerusalem, Israel. Majors: Microbiology and molecular genetics.

C. Academic Appointments and Academic Administrative Positions in Institutions of Higher Education

Academic Appointments

- 2012 - present: Adjunct Lecturer. Koret School of Veterinary Medicine, the Robert H. Smith Faculty of Agricultural, Food & Environment, Hebrew University of Jerusalem (Israel).
- 2012 - present: Teacher. The Magid Institute for Continuing Education. The Hebrew University of Jerusalem (Israel).
- 2017- 2023: Adjunct Lecturer. Departments of Animal Science and Nutritional Sciences, Faculty of Sciences and Technology, Tel Hai College (Israel).
- 2023 - present: Lecturer. Departments of Animal Science and Nutritional Sciences, Faculty of Sciences and Technology, Tel Hai College (Israel).

Academic Administrative Positions

1) 2013 - present: Head, Small Animal Theriogenology Department at the Veterinary Teaching Hospital, Department of Theriogenology, neonatology and pediatrics. Koret School of Veterinary Medicine, the Robert H. Smith Faculty of Agricultural, Food & Environment, Hebrew University of Jerusalem (Israel).
2) 2013 - 2019: Member of the Institutional Animal Care and Use Committee (IACUC), Agricultural Research Organization - the Volcani Center (Israel).
3) 2018 - 2024: Member of the European College of Animal Reproduction Exam Committee. **Chair 2022-2024**.
4) 2017- 2019: Member in the steering committee of the animal health track, Department of Animal Science, Faculty of Sciences, Tel Hai College (Israel).
5) 2020 – present: Member in the Tel Hai College Lecturers Committee.
6) 2021- 2023: Member of the Internal Academic Council. Tel Hai College (Israel).
7) 2022-present: Vice chair of the Scientific Council – The Israel Veterinary Medical Association.

8) 2024- present: Member of Ethics committee, The Israel Veterinary Medical Association.

D. Teaching in academic institutions

- 2012 - present: The Koret School of Veterinary Medicine, the Robert H. Smith Faculty of Agricultural, Food & Environment, Hebrew University of Jerusalem.
- 2017 - present: Departments of Animal Science and Nutritional Sciences, Faculty of Sciences and Technology, Tel Hai College (Israel).
- Courses taught in the past six years at the Koret School of Veterinary Medicine, the Robert H. Smith Faculty of Agricultural, Food & Environment, Hebrew University of Jerusalem:

1) Advanced small animal theriogenology - third-year doctor of veterinary medicine students.
2) Theriogenology rotation - senior year doctor of veterinary medicine students.
3) Internal medicine B feline theriogenology - third-year doctor of veterinary medicine students.
4) Theriogenology - second year doctor of veterinary medicine students. Course coordinator.
5) Theriogenology and neonatology - new immigrant veterinarian board exam preparation program.
6) Clinical Pathology - animal health technician program.
7) Theriogenology and neonatology - animal health technician program

- Courses taught in the past six years at the Departments of Animal Science and Nutritional Sciences, Faculty of Sciences and Technology, Tel Hai College (Israel):

1) 2018 - present: Animal Embryology - undergraduate.
2) 2017 - present: Reproduction in Vertebrates - undergraduate.
3) 2017 - present: Veterinary Anatomy - undergraduate.
4) 2024 – present: Exploring Frontiers in Life Sciences: Honors Seminar.

- Courses taught in academic institutes overseas:

1) March 2018: Small Animal and Equine Theriogenology lectures and wet labs for 4th to 6th-year veterinary students at the University of Veterinary Medicine and Pharmacy in Košice, Slovakia.
2) January 2023: From newborns to adults – clinical problems in dogs and cats. Thirty hours course: lectures and wet labs for final year veterinary students at the Warsaw University of Life Sciences-SGGW, Warsaw, Poland. Funded by the European Union European funds.
3) December 2024: Small Animal and Theriogenology lectures and wet lab for 6th year veterinary students at the Faculty of Veterinary Medicine, Wroclaw University of Environmental and Life Sciences, Poland.

E. Supervision of Students

- Supervision of Senior Thesis of veterinary medicine Students at the Koret School of Veterinary Medicine, The Robert H. Smith Faculty of Agricultural, Food & Environment, Hebrew University of Jerusalem (Israel):

1) Moshe Sherf (2016-2018) - The effect of pre-medication administration before emergency caesarean sections on bitches' and puppies' survival rate and on other general anesthesia parameters. In collaboration with Dr. Yael Shilo.
2) Alexandra Slon (2016-2018) - Global hemostasis in pregnant bitches. In collaboration with Dr. Sigal Klainbart.
3) Chana Matz (2017-2019) - Development of a canine amniocentesis protocol and qualitative analysis of the physical and biochemical parameters in canine amniotic fluid. In collaboration with Professor Gila Kahila Bar-Gal
4) Noy Sivan (2016-2018) - Semen quality as a predictor of health and physical performance in military working dogs. In collaboration with Dr. Yaron Bruchim.
5) Lior Hefetz (2018-2020) - Neonatal intestinal microbiome and fading puppy syndrome occurrence in Israel. In collaboration with Professor Itamar Aroch.
6) Yael Avni (2018-2022) - Discovering the estrus cycle of the female fruit bat *Rousettus aegyptiacus*. In collaboration with Dr. Yossi Yovel.
7) Tali Nave (2019-2023) – Synchronization of the estrus cycle of the Egyptian fruit bat *Rousettus Aegyptiacus.* In collaboration with Prof. Yossi Yovel.

8) Yarden Cohen (2019-2023) - changes in maternal circulating adipokines concentrations throughout pregnancy. In collaboration with Dr. Michal Mazaki-Tovi.
9) Bar Fruchter (2019-2023) - Alterations in circulating adipokines concentrations in canine pregnancy and their association with neonatal birth weight and litter size.
10) Natalie Daoud (2022-2025) – Monitoring Mandrillus sphynx fertility status during menstrual cycle at the Tisch family Biblical zoo in Jerusalem.
11) Natalie Wallach (2022-2025) - The changes in metabolomes composition of female dogs and offsprings in the first week of life and the relation to fading puppy syndrome.
12) Shira Golovner (2022-2025) - The changes in microbiome composition of female dogs and their offsprings in the first week of life and the relation to fading puppy syndrome.
13) Amit Israeli (2023-2026) - Fetal fluid eye drops – a new approach to ocular surface regeneration in veterinary medicine.
14) Yana Baum (2024-2027) - Evaluating the Impact of Neutering Age on Domestic Cat Footprint Morphology Using the Footprint Identification Technique (FIT).

- Supervision of Ph.D students at Tel Hai Academic College:
  1) Gili Rotbard (2025 – present) - Utilizing canine intestinal organoids to investigate the role of dysbiosis in fading puppy syndrome.

- <u>Supervision of research projects of Tel Hai students:</u>
  1) Klil Kestin (2018-2019) - Vinylcyclohexene diepoxide's effect on nutria's fertility in the wild. In collaboration with Dr. Yoni Vortman.
  2) Roni Arazi (2020-2022) – Metabolic characterization of the bitch's colostrum and milk in the first eight days of life. In collaboration with Prof. Omry Koren.
  3) Bar Madar (2020-2022) – Vaginal microbiome of the Bitch in the first eight days of life. In collaboration with Prof. Omry Koren.
  4) Hagar Tal (2025-2026) - Rehabilitation of the Eurasian Otter (*Lutra lutra*) population at the Hula valley as a model

F. Research Grants:

1) 2014-2017: “The use of vaccine against GnRH (Gonacon™) as non-surgical method for contraception in cats and dogs”. From the State of Israel Ministry of Agriculture & Rural Development Chief Scientist Office grant- 204,000 NIS (48,460 Euro). In collaboration with Dr. Tal Raz, (PI) (The Hebrew University), Dr. Eyal Klement (The Hebrew University), and Dr. Yaron Bruchim (The Hebrew University).
2) 2015-2016: “Global hemostasis in pregnant bitches” (PI). From the EVSSAR (European Veterinary Society for Small Animal Reproduction) grant – 17300 NIS (4000 Euro). In collaboration with Dr. Sigal Klainbart (The Hebrew University).
3) 2016-2017: “Qualitative amniotic fluid characterization in pregnant bitches: for future diagnostic and therapeutic use” (PI). From the Freie Universität Berlin – The Hebrew University of Jerusalem Joint Seed Money Funding Scheme – 47,300 NIS (11,000 Euro). In collaboration with Prof. Gila Kahila Bar-Gal (The Hebrew University) and Dr. Sebastian Arlt (Freie Universität Berlin). Towards Ph.D. research.
4) 2017-2018: “Semen quality as a predictor of health and physical performance in military working dogs” (PI). From the EVSSAR (European Veterinary Society for Small Animal Reproduction) grant – 20,500 NIS (5000 Euro).
5) 2020-2022: “The intestinal metabolome of canine healthy neonates and neonates with fading puppy syndrome” (PI). From the Veterinary Teaching Hospital Koret School of Veterinary medicine, The Hebrew University, Jerusalem grant – 20,000 NIS. In collaboration with Dr. Sharon Kuzi. (The Hebrew University).
6) 2020-2022: “Alterations in circulating adipokines concentrations in canine pregnancy and their association with maternal insulin resistance and neonatal birth weight and litter size”. From the Veterinary Teaching Hospital Koret School of Veterinary medicine, The Hebrew University, Jerusalem grant – 20,000 NIS. In collaboration with Dr. Michal Mazaki-Tovi (The Hebrew University).

7) 2023-2025: “Alterations in circulating adipokines concentrations in canine pregnancy and their association with maternal insulin resistance and neonatal birth weight and litter size”. From Tel Hai college – 10,000 NIS. In collaboration with Dr. Michal Mazaki-Tovi (The Hebrew University).
8) 2023-2026: “Rehabilitation of the Eurasian Otter (*Lutra lutra*) population at the Hula valley as a model”. From KKL-JNF chief scientist office 450,000 NIS.
9) 2025-2026: “Utilizing canine intestinal organoids to investigate the role of dysbiosis in fading puppy syndrome”. From KSVM-CCAH Joint Funding – 347,240 NIS (97, 267 USD). In collaboration with Dr. Sharon Kuzi (The Hebrew University) and Dr. Amir Kol (University of California, Davis).
10) 2025: “Fetal Fluid Eye Drops - a New Approach to Ocular Surface Regeneration in Veterinary Medicine”. From KSVM – 25,000 NIS. In collaboration with Dr. Lionel Sebbag (The Hebrew University).

G. Awards and Fellowships:
1) 2016: Koret Foundation grant – short term fellowship at the University of Pennsylvania School of Veterinary Medicine, USA.
2) 2018: Erasmus Academic Staff Mobility grant –at the Warsaw University of Life Sciences-SGGW, Poland.
3) 2019: Tel-Hai College, Faculty of Life Sciences, Department of Animal Science: department Award for Excellence in Teaching.

H. Active Participation in Conferences:

Oral presentations:
1) June 2016: 8th International Society of Canine and Feline Reproduction/19th European Veterinary Society of Small Animal Reproduction congress. Global hemostasis in pregnant Bitches. Paris, France.
2) April 2017: 10th International Working Dog Conference. Can semen quality be a predictor of health in working dogs? Banff, Alberta, Canada.
3) June 2018: 21st European Veterinary Society of Small Animal Reproduction congress. Semen quality as a predictor of health and physical performance in working dogs. Venice, Italy.

4) June 2018: 21st European Veterinary Society of Small Animal Reproduction congress. Evaluation of two chemiluminescent assays compared with Radioimmunoassay for measurement of serum progesterone levels. Venice, Italy.
5) November 2021: 2nd International workshop within APM NAWA project ScienceNet: Cryobanking a life insurance for biodiversity. Bats and cryopreservation. Online conference.
6) October 2021: 23rd European Veterinary Society of Small Animal Reproduction congress. Evaluation Of Short-Term Safety Of Ultrasound Guided Foetal Fluid Sampling In The Dog (*Canis Lupus Familiaris*). Online conference.
7) June 2022: ICAR 2020+2: Developmental intestinal microbiome alterations in canine fading puppy syndrome: a prospective observational study. Bologna, Italy.
8) June 2022: ISCFR 2020+2: Analysis of biochemical parameters in canine fetal fluids during the second half of pregnancy. Milan, Italy.
9) June 2024: 25th European Veterinary Society of Small Animal Reproduction congress. The genetic secrets revealed from Canine Fetal Fluids obtained in mid-pregnancy. Barcelona, Spain.
10) June 2024: 25th European Veterinary Society of Small Animal Reproduction congress. Smart Collar Technology tracks pregnancy rogress and predicts birth timing in female Dogs. Barcelona, Spain.
11) June 2025: 26th European Veterinary Society of Small Animal Reproduction congress. The microbiota in the perinatal period: human perspectives and future direction for companion animals. Moderator. Porto, Portugal.
12) June 2025: 26th European Veterinary Society of Small Animal Reproduction congress. Association between circulating adipokines concentrations in canine pregnancy and neonatal birth weight and litter size. Porto, Portugal.

Poster presentations:

1) September 2018. 28th ECVIM-CA annual congress. Trends in serum cobalamin, folate and total iron binding capacity concentrations in pregnant bitches and their association with hematological parameters and neonatal survival. Rotterdam, The Netherlands.

2) December 2020. Zoological society conference. The effect of VCD on female nutria fertility. Israel.
3) September 2023. 1st ESAR symposium. Metabolic composition and characterization of canine fetal fluids in the second half of gestation. Nantes, France.

I. Non-Academic Activity & Positions

5) 2016-2020: Principal Investigator. Canine pregnancy study, detection of pregnancy, prediction of day of parturition. Petpace LTD. (Israel, USA).
6) 2021-present: Advisory board member. Study of contraceptives in dogs and cats. CommuniTreat LTD. (Israel).
7) 2022-present: Consultant/advisor. Gene Therapy in canines. Gromit therapeutics, inc. (New York, USA).

J. Publications

1. Articles in refereed journals (IF and ranking according to JCR, No. of citations according to Scopus)

Published articles:

1) **Tal, S.** & Grinberg N. Pyometra in a Bitch Following Placement of a Deslorelin Implant. Israel Journal of Veterinary Medicine, 2013, 68 (2): 128-131. Impact Factor of 0.29. Category name VETERINARY SCIENCE Q4(117/140), No. of citations, 1. Available at: http://www.ijvm.org.il/sites/default/files/pyometra_in_a_bitch.pdf.
2) *Waner, T., ***Tal, S.,** Edery N., Perl S. (* =both authors contributed equally). A Case Report of a Spontaneous Feline Metastasizing Uterine Fibrosarcoma in a Himalayan Cat._Israel Journal of Veterinary Medicine, 2013, 68 (4): 234-238. Impact Factor of 0.29. Category name VETERINARY SCIENCE Q4(117/140). Available at: http://www.ijvm.org.il/sites/default/files/pyometra_in_a_bitch.pdf.
3) Klainbart S., Aroch I., Slon A., Raz T., **Tal S**. Global hemostasis in pregnant Bitches. Theriogenology, 2017, 97 (8): pp 57-66._Impact Factor of 2.136. Category Name VETERINARY SCIENCE Q1(13/140). Available at:https://www.sciencedirect.com/science/article/pii/S0093691X17301802.

4) Nivy R., Mazaki-Tovi M., Aroch I., **Tal S.** Trends in serum cobalamin, folate and total iron binding capacity concentrations in pregnant bitches and their association with hematological parameters and neonatal survival. Journal of Veterinary Internal Medicine, June **2019**:1–8. Impact Factor of 2.286. Category Name VETERINARY SCIENCES Q1(12/141) Available at: https://onlinelibrary.wiley.com/doi/abs/10.1111/jvim.15551.

5) Amichai E., **Tal S.**, Boonman A., Yovel Y. Ultrasound Imaging Reveals Accelerated In-utero Development of a Sensory Apparatus in Echolocating Bats. Scientific Reports, **2019**, 27;9(1):5275. Impact Factor of 4.011. Category Name MULTIDISCIPLINARY SCIENCES Q1(17/71) Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6437157.

6) **Tal S.,** Mazaki-Tovi M., Druker S., Novak S., Raz T., Aroch I. Evaluation of two chemiluminescent assays compared with radioimmunoassay for serum progesterone measurement in bitches. Theriogenology, **2020**, 147:116-123. Impact Factor 2.299. Category Name VETERINARY SCIENCES Q1(11/141). Available at: https://www.sciencedirect.com/science/article/pii/S0093691X18309452.

7) Tal S., Arlt S., Kahila Bar-Gal G. Evaluation of short-term safety of ultrasound-guided foetal fluid sampling in the dog (*Canis familiaris*). Veterinary Record, **2021**, 188(7): e31:1-8. Impact Factor 2.442. Category Name VETERINARY SCIENCES Q1(10/141). Available at: https://doi.org/10.1002/vetr.31.

8) **Tal S.,** Tikhonov E., Aroch I., Hefetz L., Koren O., Kuzi S. Developmental intestinal microbiome alterations in canine fading puppy syndrome: a prospective observational study. npj Biofilms and Microbiomes, **2021**, 7(52):1-10. Impact Factor 6.77. Category Name APPLIED MICROBIOLOGY AND BIOTECHNOLOGY Q1(5/110), MICROBIOLOGY Q1(20/152). Available at: https://doi.org/10.1038/s41522-021-00222-7.

9) Novak S., Yakobson B., Sorek S., Morgan L., **Tal. S**., Nivy R., King R., Jaebker L., Eckery D.C., Raz T. Short term safety, immunogenicity, and reproductive effects of combined vaccination with anti-GnRH (Gonacon) and rabies vaccines in female feral cats. Frontiers in Veterinary Science,

2021, 8:1-17. Impact Factor 3. 412. Category Name VETERINARY (MISCELLANEOUS) Q1(17/200). Available at: https://doi.org/10.3389/fvets.2021.650291.

10) **Tal S.,** Sutton GA, Arlt SP, Kahila Bar-Gal G. Analysis of biochemical parameters in canine fetal fluids during the second half of pregnancy. published in Theriogenology,**2022** Vol 189 p 31-41. Impact factor 2.86. Category name VETERINARY SCIENCE Q1(13/140).Available at: https://doi.org/10.1016/j.theriogenology.2022.05.009.

11) **Tal S.,** Shilo- Benjamini Y., Anesthesia, pain management and surgical approach of ovariectomy or castration in Egyptian fruit bats (*Rousettus aegyptiacus*). Frontiers in Veterinary Science, **2023** Vol 10: 1121526. Impact Factor 3.471. Category name VETERINARY SCIENCE Q1(54/2114). Available at: https://doi.org/10.3389/fvets.2023.1121526.

12) Eliyahu E., Katz MG., Vincek A, Freage-Kahn L., Ravvin S., **Tal S.**, Grage H., Shtraizent N., Barak T., Arkush B. Effects of Hormone Replacement Therapy on Women's Lung Health and Disease. Pulm Ther. **2023** Vol 9(4): 461-477. Impact Factor 2.70. Category name RESPIRATORY SYSTEM-ESCI Q1(5/35). Available at: https://doi.org/10.1007/s41030-023-00240-0.

13) Avdeev M., **Tal S.**, Vortman Y., Shanas U. The effect of 4-vynilcyclohexene diepoxide on the female Coypu (*Myocastor coypus*) fertility in captivity – a pilot study. Journal of Zoo and Wildlife Medicine. March **2024.** Vol 55(2):412-423. Impact Factor: 0.70. Category name VETERINARY (MISCELLANEOUS) Q2(105/143). http://doi.org/10.1638/2023-0064.

14) Cohen A., Turjeman S., Levin R., Tal S., Koren O. Comparison of canine colostrum and milk using a multi-omics approach. Anim Microbiome. April **2024** Vol 6(19):1-11. Impact Factor 4.7. Category name MICROBIOLOGY Q1(15/156), VETERINARY SCIENCE Q1(6/171). https://doi.org/10.1186/s42523-024-00309-4.

15) Katz M., Ohad D.G., Putter P., Shtraizant N., Shahar E., Tal S. and Eliyahu E. Metabolic Gene Therapy in a Canine with Pulmonary Hypertension Secondary to Degenerative Mitral Valve Disease. Front. Vet. Sci. September 2024. September **2024** Vol 11: 1-7. Impact Factor 2.6.

Category Name VETERINARY SCIENCE Q1(14/168). https://doi.org/10.3389/fvets.2024.1415030.

16) * Tal S., Bar-Gal G.K. The genetic secrets revealed from canine fetal fluids obtained in mid-pregnancy. Sci Rep July 2025 Vol. 15, 28375. https://doi.org/10.1038/s41598-025-13183-0.

Submitted articles:

1) **Tal S.,** Khateeb S., Schweitzer R., and Kahila Bar-Gal G., Metabolic composition and characterization of fetal fluids in the second half of gestation in the dog.

Articles in preparation:

2) **Tal S**., SRY Negative 78, XX Sex Reversal in a Cane Corso Dog.

3) **Tal S.,** Bruchim Y., Spontaneous vaginal bleeding in a pregnant queen associated immune mediated thrombocytopenia and hemolytic anemia.

4) **Tal S.,** Bruchim Y., Kahila Bar-Gal G., Sivan N., Raz T., Semen as a predictor of health and physical performance in military working dogs.

5) **Tal. S.,** Smarsh G., Yovel Y. Ultrasonographic fetometry of growth and cardiology in the Egyptian fruit bat, *Rousettus aegyptiacus.*

6) Cohen A., Turjeman S., Kuzi S., **Tal S.,** Koren O. Barking up the microbiome tree: a multi-cavity characterization of the dog microbiome.

7) **Tal S**., Aroch I. Case Report: Post-Spay Hemorrhage and Hereditary Hyperfibrinolysis in a Saluki Cross family.

8) **Tal S.,** Cohen Y., Fruchter B., Mazaki-Tovi M. Alternations in circulating adipokines concentration in canine pregnancy and their association with maternal insulin resistance, neonatal birth weight and litter size.

K. Miscellaneous

9) Public or other positions in professional fields:

1) 2000 - 2004: Israeli Veterinary Medical Association. Board member.

10) Membership in professional organizations:

- International working dog breeding association (2015-current), European College for Animal Reproduction (2014-current), Israel Veterinary Medical Association (1994- current), College of Veterinarians of Ontario, Canada (1992- current), Canadian Veterinary Medical Association (1992- 2008), American College of Theriogenologists (2011-current), Society of Theriogenology (1990-current), European Veterinary Society for Small Animal Reproduction (2008 –current), European Society for Domestic Animal Reproduction (2012-current), The Zoological society of Israel (2024-current)

11) Special contribution to the college or the community:

1) July 2008: Topics in reproduction of the bitch for Veterinarians, the Koret Veterinary Teaching Hospital, Beit Dagan, Israel.
2) July 2008 Breeders conference, Koret Veterinary Teaching Hospital, Beit Dagan, Israel.
3) May 2009: Non-surgical contraception in Small animals for teaching hospital faculty, the Koret Veterinary Teaching Hospital, Beit Dagan, Israel.
4) November 2010: Reproductive emergencies and neonatology, Knowledge Farm emergency center, Beit Berl, Israel.
5) June 2012: Topics in small animal reproduction- Israeli veterinary Medical Association conference, Beit Erez, Mishmar Hashiva, Israel.
6) August 2013: Topics in small animal reproduction – Magid Institute conference for animal health technicians, the Koret Veterinary Teaching Hospital, Beit Dagan, Israel.
7) October 2013 Mini-course: Canine reproduction – management, physiology and breeding the bitch and stud dogs- Israeli Kennel club, the Koret Veterinary Teaching Hospital, Beit Dagan, Israel.
8) February 2014: Lecture - dystocia and neonate emergency in the bitch and queen – Chavat Daat Veterinary center, Israel.
9) 2014-2015: Seminars to practicing veterinarians countrywide (small groups) – from Kiryat Shmona to Beer Sheva, Israel.
10) May 2015: Seminar - dystocia and neonatology in the bitch and queen, Hakfar Hayarok emergency veterinary center, Israel.
11) September 2015: Seminar - breeders – pregnancy dystocia and neonatology – the Hebrew University Veterinary Teaching Hospital, Israel.

12) January 2016: Seminar – breeders- the bitch – the Hebrew University Veterinary Teaching Hospital, Israel.
13) October 2018: Mini-course continuing education – Canine and Feline Theriogenology- for practicing Veterinarians. The Hebrew University Veterinary Teaching Hospital, Beit Dagan, Israel.
14) January 2020: Mini-course continuing education - Canine and Feline Theriogenology- for practicing Veterinarians. Israel CPD-Vet education center. Shorashim, Israel.
15) March 2022: Annual IVMA conference: 2 lectures: Parturition in the bitch and Brucella canis. Tel Aviv, Israel.
16) December 2022: Mini-course continuing education – canine and feline Theriogenology. The Hebrew University Veterinary Teaching Hospital, Beit Dagan, Israel.
17) September 2024:Invited lecture continuing education - the dillema of contraception in pets. The Hebrew University Veterinary Teaching Hospital, Beit Dagan, Israel.

- Review of research proposals:
  - 2015- present: reviewer for research proposals for the Head Scientist of the Israel Ministry of Agriculture and Rural Development (Israel).
  - December 2017: final research projects of the veterinary student Hadar Norany at the Veterinary faculty of the Koret School of Veterinary medicine, Hebrew University.
  - October 2020: final research projects of the veterinary student Adi Anbari at the Veterinary faculty of the Koret School of Veterinary medicine, Hebrew University.
  - October 2021: final research projects of the veterinary student Stav Asulin-Schnaiderman at the Veterinary faculty of the Koret School of Veterinary medicine, Hebrew University.
  - March 2024: final research projects of the veterinary student Ellen Daw at the Veterinary faculty of the Koret School of Veterinary medicine, Hebrew University.

- May 2025: final research projects of the veterinary student Dorin Dalkian Damary at the Veterinary faculty of the Koret School of Veterinary medicine, Hebrew University.

- Ad Hoc reviewer of research manuscripts for the journals:
  - Theriogenology
  - Israel Journal of Veterinary Medicine

- <u>Recent and ongoing research projects and scientific collaborations:</u>
  - 2017-2021: In Vitro Fertilization and genetic manipulation using CRISPR/Cas9 technology in *Rousettus aegyptiacus* fruit bat. Department of Zoology, Faculty of Life Sciences, Tel Aviv University, Israel. Dr. Yossi Yovel's laboratory.
  - 2018-present: Microbiome changes in canine neonates in the first days of life that can be associated with the development of fading puppy syndrome, and FMT. In collaboration with Prof. Omry Koren, Dr. Sharon Kuzi, and Prof. Itamar Aroch.
  - 2019-2021: research project: Vinylcyclohexene diepoxide's effect on nutria's fertility in the wild. In collaboration with Prof. Uri Shanas and Dr. Yoni Vortman. First part – concluded collaboration and supervision of an M.Sc. reseach project of Michal Avdeev (Almoznino). Preparing for advanced research in 2022 and onwards.
  - 2019-present: Sphingolipid metabolized enzyme for gene therapy in animal care. In collaboration with Dr. Efrat Eliyahu Ichan School of Medicine at Mt. Sinai NYC. Principal investigator at the Hebrew University Veterinary Teaching Hospital. Clinical trial approved and in progress.
  - 2020-2025: Alterations in circulating adipokines concentrations in canine pregnancy and their association with maternal insulin resistance and neonatal birth weight and litter size. In collaboration with Dr. Michal Mazaki-Tovi from the Hebrew University.
  - *2025-present: Utilizing canine intestinal organoids to investigate the role of dysbiosis in fading puppy syndrome. In collaboration with Prof. Itamar Aroch and Dr. Shron Kuzi from the Hebrew University, and Prof. Amir Kol from UC Davis.

- *2025-present: Rehabilitation of the Eurasian Otter (*Lutra lutra*) population at the Hula valley as a model.
- *2025-present: Fetal Fluid Eye Drops - a New Approach to Ocular Surface
- Regeneration in Veterinary Medicine. In collaboration with Dr. Lionel Sebbag from the Hebrew University.