#### **Curriculum Vitae (Dr. Hani Hamad)**

**Personal Data:** 

Name : Hani Jameel Mohammad Hamad

Nationality : Jordanian.

Status : Married (Four kids)

E-mail : hanihamad14@yahoo.com; hhamad@philadelphia.edu.jo

Mobile# : 00962776190572

**Academic Qualifications** 

A) Degree/Yr: Doctor of Philosophy (PhD), 2011

Field : Community Nutrition

Institution: Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences, University of

Putra, Malaysia (UPM) (#158:QS World University Rankings 2024), 43400, Serdang, Selangor,

Malaysia

B) Degree/Yr: Master of Science (M.Sc.), 2003

Field: Nutrition and Food Science / Nutritional Science

Institution: Department of Nutrition and Food Science / Faculty of Agriculture, University of Jordan, Jordan

C) Degree/Yr: Bachelor of Science (B.Sc.), 1998

Field : Agricultural Sciences / Nutrition and Food Technology

Institution: Department of Nutrition and Food Technology, Faculty of Agriculture, Jordan University of

Science and Technology (J.U.S.T), Jordan

### **Professional Experience:**

Sept./2022 – till now: **Associate Professor**, Department of Clinical Nutrition and Dietetics/ Faculty of Allied Medical Sciences, **Philadelphia University**, Jordan

Jul./2020 - Sept./2022: **Associate Professor**, Department of Food Science and Nutrition / Faculty of Agriculture, **Jerash University**, Jerash, Jordan

Oct./2012 - Jul./2020: **Assistant Professor** , Department of Food Science and Nutrition / Faculty of Agriculture, Jerash University, Jerash, Jordan

Feb./2012 - Jun./2012: **Part-time Lecturer**, Department of Food Technology, TOLEDO University College, Al-Balqa Applied University Irbid, Jordan.

Apr./2005 - Feb./2007: **Research Assistant**, Department of Nutrition and Dietetics, Faculty of Medicine and Health Sciences, University of Putra, Malaysia, Malaysia.

Dec/2003 - Apr/2004: **Nutritionist**: six-month training program organized by the Nutrition and Health Education Clinic and Department of Nutrition/Islamic Hospital, Amman, Jordan.

Sep./2001 - Sep./2002: **Graduate Research Assistant** at Department of Nutrition and Food Technology, Faculty of Agriculture, University of Jordan.

Mar./1999 - Dec./1999: **Production engineer and quality control manager** at Mafraq Food Industries
Company (MAFICO), in training program organized by Agriculture Engineers
Association (Jordan)

#### **Taught courses:**

1. Principles of Nutritional Science	2. Fundamentals of Food and Nutritional Science	
3. Human Nutrition	4. Nutritional Status Assessment (Theory & Practical)	
5. Nutrition Education and Extension	6. Diet Therapy (1)	
7. Diet Therapy (2)	8. Clinical Nutrition (Nursing)	
9. Meal Planning	10.Field Training (Practical/Nutrition- 12 Credits)	
11. Special Topics in Food and Nutrition	12. Nutrition Through Life cycle	
13.Community Nutrition(Theory &	14.Food in our Life	
Practical)		
15.Introduction to Food Technology	16.Food Quality Control	
17. Nutrition and Metabolism	18.Sports Nutrition	
19. Nutritional Epidemiology	20. Seminar (Recent Nutrition Topics)	



### **Publications:**

# **Submitted Papers:**

- Refat A. Alkurd, Narmeen J. Al-Awwad, Maysoun S. Qutob, Asma'a Albakri, <u>Hani J. Hamad</u>, Mohammed
  O. Ibrahim, Hadil Subih, Husam Khraiwesh, Fadwa Hammouh, Dana N. Abdelrahim, Hamid A. Alhaj &
  Moez A. Faris (2024). Changes in neuropsychiatric and neurocognitive functions in relation to sleep quality
  among adults during Ramadan intermittent fasting observance: A prospective cohort Study. (Submitted:
  Journal of Religion and Health).
- 2. Ashraf Omar Khashroum, Shamaail A. Saewan, <u>Hani J. Hamad</u>, Zaher Al-Bashabsheh, Zaid Kh. Khidhir, Hussain Muhaldin, Rinas Muhammed, Zryan Kawa, Zryan Nwry (2024). Evaluation of the Effect of Internal Climate Forcing Process (Industrial Storage at 4 °C) on Quality of Canned Meat. (Submitted: Pakistan Journal of Scientific and Industrial Research Series B: Biological Sciences).
- 3. Mo'ez Al-Islam'' Faris, <u>Hani J. Hamad</u>, Alaa Rabah, Maryam Kazi, Mariam Jahfar, Reem Alsardi, Samihah Ishaque and Reyad Obaid (2024). Body Image Dissatisfaction, Food Addiction and Depression are Associated with Body Fatness among College Students: A Cross-sectional Study from Sharjah/UAE. (Submitted: Malaysian Journal of Nutrition).
- 4. Z. Al-Bashabsheh, N. Batarseh, G. Othman, N. Al Bashabsheh, M. Jagannathan, <u>Hani J. Hamad</u> (2024). Extent of Weight Bias against Obese Patients among Allied HealthCare Professional Students in Jordan (submitted: Journal of Obesity)
- 5. Mariam Kawafha, Dua'a F. Al-Maghaireh, Mohammad A. Al-Ma'ani, Hayat Abu Shaikha, Muamar Aldalaeen, Saleh Daradkeh, <u>Hani J. Hamad</u>, Wasfy Hamad, Abedelkader Al kofahi; Heidar Sheyab (2024). Nutritional Condition and Academic Attainment among Children in Jordan. (Submitted: International Journal of Nursing Sciences)
- 6. Maher Mahmoud Al-Dabbas, Azza Ramadan, <u>Hani J. Hamad</u>, et al. (2024). Cytotoxicity, Antioxidant, and α-Amylase Inhibitory Activities of Wild and Nabali Olive Leaf Extracts from Jordan . (Submitted: Advances in Pharmacological and Pharmaceutical Sciences).
- 7. Yousef Abusamra, Mohammad Al Shomali, Alaa Elayan, Amenah Dh'anoon, <u>Hani J. Hamad</u> (2024). Effect of aging on the main active ingredients in the volatile oil and a methanolic extract from Achellia santolina. (submitted: Indian Journal of Traditional Knowledge)
- 8. <u>Hani J. Hamad</u>, Abdullah H. Anaqreh, Radi A. Al-Tarawneh, Madhanagopal Jagannathan , , Zaher Albashabsheh, , Dua'a Al-Maghaireh, Yousef Abusamra , Ashraf Khashroum & Fadwa Al-Halaiqah (2023). Household food insecurity and nutritional status of pre-school children following relaxation of COVID-19 restrictions. *Journal of Xi'an Shiyou University, Natural Science Edition*, VOLUME 19 ISSUE 06.

- 9. Aiman A Shoiab, Ali Alsarhan, Ashraf O. Khashroum, Shamaail A. Saewan, <u>Hani J. Hamad</u> (2024). The Impact of Daily Instant Coffee Consumption on Serum Lipid Profile. (submitted: Cogent Food & Agriculture)
- 10. <u>Hani J. Hamad</u>, Zaher Al-Bashabsheh, Madhanagopal Jagannathan\*, S. Deivasigamani, B. Sakthivel Machine learning-assisted prediction of associated risk factors for depression, anxiety and stress among nursing students. (submitted: Scientific African)
- 11. Ali sarhan, suha.ababneh & <u>Hani Hamad</u> (2024). Ameliorating effects of vitamin C and ammi visnaga seeds on cigarette and waterpipe smoking cytotoxicity in the lung and heart ventricle <u>(submitted: World Scientific Journal)</u>

## Published Papers:

- 1. Al-Zabt A.M., <u>Hamad, H.J.</u>, Pak-Dek, M.S., Ramli, N.S. and Rukayadi, Y (2024). Antioxidant activity of jambu bol [Syzygium malaccense (L.) Merr. and Perry] leaves extract. Food Research, 8 (2): 427 434 (SCOPUS Q3)
- AlJaloudi, Rawan, Maher M. Al-Dabbas, <u>Hani J. Hamad</u>, Rawan A. Amara, Zaher Al-Bashabsheh, Mahmoud Abughoush, Imranul H. Choudhury, Bha'a Aldin Al-Nawasrah, and Sehar Iqbal (2024). "Development and Characterization of High-Energy Protein Bars with Enhanced Antioxidant, Chemical, Nutritional, Physical, and Sensory Properties" *Foods* 13, no. 2: 259. <a href="https://doi.org/10.3390/foods13020259">https://doi.org/10.3390/foods13020259</a>
   (SCOPUS Q1)
- 3. Ashraf Khashroum, Yazan Fawadleh, <u>Hani J. Hamad</u>, Shamaail Saewan, Islam Al-Mashagbeh & Mohammad Al-Alawneh (2024). Effect of additions of humic and fulvic acids on soil properties and germination percentage of cucurbit plants (zucchini and cucumber). *Nature Environment and Pollution Technology*, Vol. 23, No.1. (SCOPUS Q4)
- 4. Mariam M. Kawafha, Dua'a F. Al-Maghaireh, <u>Hani J. Hamad</u> et al. (2023). Impact of Parental Support During Health Behavior Classes on Primary School Students' Awareness of Obesity. Journal for Re Attach Therapy and Developmental Diversities, August; 6 (9s): 1460-1468. (SCOPUS Q4)
- 5. Al-Dabbas, Maher M., Majd Moumneh, <u>Hani J. Hamad</u>, Mahmoud Abughoush, Balkees Abuawad, Bha'a Aldin Al-Nawasrah, Rawan Al-Jaloudi, and Sehar Iqbal (2023). "Impact of Processing and Preservation Methods and Storage on Total Phenolics, Flavonoids, and Antioxidant Activities of Okra (Abelmoschus esculentus L.)" *Foods* 12, no. 19: 3711. https://doi.org/10.3390/foods12193711 (SCOPUS Q1)
- 6. Madhanagopal Jagannathan, Hani J. Hamad, Zaher Al-bashabsheh1, Stephen Yong, Christina Gellknight

- & Fuad A Abdulla (2023). Influence of Six Weeks Eye Exercise Program on the Severity of Digital Eye Strain Among Primary School Students. *Innovations*, Number 74:585. (SCOPUS Q4)
- 7. Ashraf O. Khashroom ,Shamaail A. Saewan , Saher S. George , <u>Hani J. Hamad</u> (2020). Environmental Pollution and its Effect on Quality of the Bottled and Non-bottled Drinking Water. *Arab Journal for Food and Nutrition*, August; Vol.20; No.47.
- 8. Shamaail A. Saewan, Saher S. George, Ashraf O. Khashroom & **Hani J. Hamad** (2020). The Impact of Environmental Polution and Industrial Processes on the Microbial Content and Residual Elements in Dried Fruits. *Anbar Journal of Agricultural Sciences*, 18(2): 263–271.
- 9. Dua'a F. Al-Maghaireh, Mariam Mofleh Kawafha, Niven R. Basyouni, Ahmad Mahmoud Saleh & <u>Hani</u>

  <u>J. Hamad</u> (2020). Non-pharmacological coping skills for Labor: A comparative study. *International Medical Journal*, 25(01) (SCOPUS/UNRATED)
- 10. Ahmad A. Obeidat, <u>Hani J. Hamad</u>, Bara'ah Mehdawi, Maysam Al-Sayyad, Seba Alaqqad, Raghad AlAjloni, Mustafa Shanaah and Ashraf M. Al-Khamaiseh (2019). Alarming High Prevalence of Overweight and Obesity among Adults in Jerash University: A Cross-Sectional study. *Bull. Env. Pharmacol. Life Sci.*, 8(10):109-117
- 11. Mona S. Hashim , Asma A. Obaideen, Haitham A. Jahrami , Hadia Radwan , <u>Hani J. Hamad</u>, Alaa A. Owais, Lubna G. Alardah, Samir Qiblawi, Nabeel Al-Yateem and "Mo'ez Al-Islam" E. Faris(2019). Premenstrual Syndrome Is Associated with Dietary and Lifestyle Behaviors among University Students: A Cross-Sectional Study from Sharjah, UAE. *Nutrients*, 11: 1939. (<u>SCOPUS Q1</u>)
- 12. Ahmad A. Obeidat , <u>Hani J. Hamad</u>, Shamaail A. Saewan , Ashraf O. Khashroom and Omar K Al-Boqai (2019). Iron Bioavailability, Deficiency and its Consequences in Infants and Children: State of the Art. *Bull. Env. Pharmacol. Life Sci*.8(8):129-138.
- 13. <u>Hani J. Hamad</u> and Dua'aFayiz Al-Magaireh (2019). Validation of the Arabic Version of the MiniDepression, Anxiety and Sleep Disturbance Questionnaires in Jordan. *International Journal of Novel Research in Healthcare and Nursing*, 6(2): 808-817.
- 14. Ashraf O. Khashroom ,Shamaail A. Saewan , Saher S. George , <u>Hani J. Hamad</u> (2019) . Chemical and Microbial Environmental Contaminants in Fruits and Vegetables and their Effects on Health: A Mini Review. (IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)) 13(4):70-76.
- 15. Maher M. Al-Dabbas, Asma A. Shaderma, Tawfiq M. Al-Antary, Hadeel A. Ghazzawi and <u>Hani J. Hamad</u> (2018). Effect of Ozonation on Cypermethrin and Chloropyrifos Pesticides Residues Degradation inTomato Fruits. *Fresenius Environmental Bulletin*, 27(10):6628-6633. (SCOPUS Q1/AT PUBLICATION TIME)

- 16. Ahmad A. Gharaibeh, <u>Hani J. Hamad</u>, Basil H. Amarneh and Nizar. Alrabadi. (2017). Obesity and Related Factors among Jerash University Population. *Journal of Health*, *Medicine and Nursing*, Vol.35; 106-111.
- 17. <u>Hani J. Hamad</u> (2017). Prevalence of Obesity and Perceptions of Body Weight among University Students: Evidence from Jordan. *Journal of Health, Medicine and Nursing*, Vol.34; 37-39.
- 18. <u>Hani J. Hamad</u> (2017). Meeting Dietary Food Groups Serving's Requirements of Food Guide Pyramid among Jordanian University Students. *Journal of Medicine*, *Physiology and Biophysics*, Vol.29; 1-4.
- 19. <u>Hani J. Hamad</u> (2017). Dietary and Lifestyle Behaviors of the University Students Living Away from Their Home: A Cross-Sectional Study. *Research on Humanities and Social Sciences*, Vol.7, No.2; 28-32.
- Hani J. Hamad, Diana Theeb Abu-Hassouneh, Mohammed O. Ibrahim and "Mo'ez Al-Islam" E. Faris.
   (2016). Prevalence of Obesity among Jordanian School-aged Adolescentsin Greater Amman. *Journal of Health, Medicine and Nursing*, Vol.33; 91-96.
- 21. Maher Al-Dabbas, Mohammed Saleh, <u>Hani J. Hamad</u> and Waseem Hamadeh. (2016). Chlorophyll color retention in green pepper preserved in natural lemon juice. *Journal of Food Processing and Preservation*, Vol. 27, No. 10; 6628-6633. Wiley Periodicals, Inc. (SCOPUS 02)
- 22. <u>Hani J. Hamad</u>, Ahmad A. Gharaibeh, Motasem Al-Masad, Ahmad Q. Al-Momani ,Wasfy Hamad and Ashraf Khashroum (2016) Comparison Between the Effects of Different Sources of Dietary Fiber on Blood Lipid Profile in Rats. *Journal of Biology, Agriculture and Healthcare*, Vol.6, No.12;70-77.
- 23. Wasfy J. Hamad and Hani J. Hamad (2016). Metabolic syndrome (MS): definition, classification and potential associated factors. *International Journal of Health Sciences & Research (IJHSR)*, Vol.6, No.6;360-369.
- 24. <u>Hani J. Hamad</u>, Ashraf Khashroum and Bassam Aldeseit (2016). Nutritional and Health Outcomes of Household Food Insecurity (HFIS). *Journal of Biology, Agriculture and Healthcare*, Vol.6, No.4;147-157.
- 25. <u>Hani J. Hamad</u> and Ashraf Khashroum (2016). Household Food Insecurity (HFIS): Definitions, Measurements, Socio-Demographic and Economic Aspects. *Journal of Natural Sciences Research*, Vol.6, No.2;63-75.
- 26. Mohammed O. Ibrahim, Mousa N. Ahmad, <u>Hani J. Hamad</u> and Wasfy J. Hamad (2016). Effect of Birhi Variety of Date Palm Fruits, (*Phoenix dactylifera L.*) at the Tamr Stage on Serum Glucose Levels in Streptozotocin-Induced Diabetic Rats. *Journal of Agricultural Science*, Vol. 8, No. 1; 110-118.
- 27. <u>Hani J. Hamad</u>, Mysaa Ata, Wasfy J. Hamad and Hamed R. Takruri (2015). Effect of Soaking and Fermentation of Wheat Bran on Weight Gain, Accumulative Food Intake and Food Efficiency Ratio in Rats.

- 28. Mysaa Ata and <u>Hani J. Hamad</u> (2015). Relationship between Birth Weight and Body Growth of Awassi Lambs during Early Weaning. *Journal of Biology, Agriculture and Healthcare*, Vol.5, No.24; 95-99.
- 29. Wasfy J. Hamad, <u>Hani J. Hamad</u> and Mohammed O. Ibrahim (2015). "Alzheimer disease & genetics: A mini review". *International Journal of Current Research*, Vol.7, No.11; 23067-23073.
- 30. Hamed R. Takruri and <u>Hani J. Hamad</u> (2005). The effect of different processing treatments of wheat bran on serum lipids and lipoproteins in Sprague-Dawley rat. *Arab Journal for Food and Nutrition*, 6(12), 616.

#### **Editorial Board membership:**

- Global Journal of Public Health Medicine (GJPHM) https://www.gjphm.org/index.php/gjphm/about/editorialTeam
- International Journal of Advanced Multidisciplinary Research and Studies

#### **Reviewing research papers:**

 Many local and international journals (e.g. Malaysian Journal of Nutrition, JORDAN JOURNAL OF AGRICULTURAL SCIENCES,etc...)

#### **Conferences:**

- 21 & 22 February, 2024 2nd Pediatric Nutrition Conference: "Emerging Insights into Nutrition in Pediatric Metabolic Diseases" Qatar University (Oral Presentation)
- 2023 MUAJ Jerash university MUAJ-EMJ 1st International Conference on Asian Studies Proceeding ICAS
- 27-29 April 2023 4<sup>th</sup> International Conference on Food, Agriculture and Animal Sciences, Sivas, Turkey (Speaker: Webinar)
- July13-14, 2020 "Nutrition Research Virtual 2020" organized by International Nutrition Research Conference (Nutrition 2020); theme 'Highlighting Recent Advances and Techniques in Nutrition Research.' (Speaker)
- 25-28/11/2020 The Ninth International Medical Conference of the Jordanian Medical Association, Irbid, Jordan.

  "Trans Fatty Acids and Cardiovascular Diseases" (Speaker)
- 28-30/04/2019 Conference on Food Security and Sustainable Agriculture within Climate Change" Held at Faculty of Agriculture, Jerash University, Jerash, Jordan. (Speaker).
- 10-12/04/2019 "The First International Conference on Modern Nanotechnology and its Applications" Held at Jordan University of science and Technology (JUST), Jordan. (Jerash University representative).
- 24-26/04/2019 The Eighth International Medical Conference of the Jordanian Medical Association, Irbid, Jordan.

  "Effect of the Residual Microbial and Chemical Environmental Pollutants in Vegetables and Fruits on Health" (Speaker)
- 03/07/2018 "The Third International Conference on the Ethics of Scientific Research in Jordan" Held at Jordan University of science and Technology (JUST), Jordan. (Jerash University representative).
- 02/2018 "A workshop to draft the national food strategy to achieve "zero hunger" within the 2030 United Nations development goals" organized by The Jordanian Higher Committee for Sustainable Strategy Towards "Zero Hunger", Amman ,Jordan (Jerash University Committee).
- 22-24/03/2017 The Sixth International Medical Conference of the Jordanian Medical Association, Irbid, Jordan.
  Assessment of Healthy Dietary Behaviors of School Children and Adolescents in Rural Areas:
  A Nutritional Survey (Speaker)
- 24-26/06/2014 The first Agricultural Scientific Conference of the Faculty of Agriculture "Agricultural production in the Arab world between reality and ambition". Held at Faculty of Agriculture, Jerash University, Jerash, Jordan. (Speaker).
- 16-17/11/2011 Functional Foods Conference: Nutritional and Health Implications. Held at Faculty of Medicine

24-25/03/2011 Nutrition Society of Malaysia (NSM)-26thScientific Conference. Held at Crowne Plaza Mutiara Hotel, Kuala Lumpur, Malaysia.(Participant)

## Workshops /Seminars/Training courses attended:

- 05/2023 Training course "**Advanced Statistical Analysis Using SPSS Part 02**". Organized by Faculty of Allied Medical Sciences, Philadelphia University, Jordan.
- 02/2023 Training course "Advanced Statistical Analysis Using SPSS Part 01". Organized by Faculty of Allied Medical Sciences, Philadelphia University, Jordan.
- 19/10/2011 Seminar "**Recent Advances in Maternal and Child Nutrition Seminar**". Organized by Department of Nutrition and Dietetics, University of Putra, Malaysia (UPM) and MeadJohnson Nutrition. Held at Faculty of Medicine and Health Sciences, UPM, Malaysia.
- 9-10/08/2011 Workshop "Exploring Advanced Statistics Using SPSS". Organized by School of Graduate Studies, University of Putra, Malaysia (UPM), Malaysia. Held at Faculty of Veterinary Medicine, UPM, Malaysia.
- 9-10/08/2011 Workshop "Intermediate Statistical Analysis Using SPSS". Organized by School of Graduate Studies, University of Putra, Malaysia (UPM), Malaysia. Held at Faculty of Veterinary Medicine, UPM, Malaysia.
- 11–12/07/2011 Workshop "Issues in Postgraduate Research (with emphasis on **SPSS in Biological Sciences**): **Basic**" Organized by School of Graduate Studies, University of Putra, Malaysia (UPM), Malaysia. Held at Faculty of Veterinary Medicine, UPM, Malaysia.
- 27–28/07/2011 Workshop "Issues in Postgraduate Research (with emphasis on **SPSS in Biological Sciences**) :**Intermediate** " Organized by School of Graduate Studies, University of Putra, Malaysia (UPM), Malaysia. Held at Faculty of Veterinary Medicine, UPM, Malaysia.
- 19/07/2011 Seminar "**Research Methods for Community Studies, Social and Health Sciences Seminar**". Organized by School of Graduate Studies, University of Putra, Malaysia (UPM), Malaysia. Held at Faculty of Medicine and Health Sciences, UPM, Malaysia.
- 6-7/07/2011 Workshop"Technique and Skill Improvement in Using the 'Integrated' SAS and Excel Packages in Data Handling, Statistical Analysis, and the Analysis Output and Presentation workshop". Organized by School of Graduate Studies, University of Putra, Malaysia (UPM), Malaysia. Held at Faculty of Medicine and Health Sciences, UPM, Malaysia.
- 8-10/12/2010 Workshop "SPSS for Biological Sciences Workshop". Organized by School of Graduate Studies, University of Putra, Malaysia (UPM), Malaysia. Held at Faculty of Medicine and Health Sciences, UPM, Malaysia.
- 10/11/2009 Seminar "**Updates on Child Nutrition and Health**". Organizedby University of Putra, Malaysia (UPM) and Mead-Johnson Nutrition.Held at Faculty of Medicine and Health Sciences, UPM, Malaysia.
- 18-19/04/2006 Workshop "Statistical Analysis Using SPSS". Organized by SPSS BI (Malaysia) SDN. BHD Company. Held at University of Putra, Malaysia (UPM), Malaysia.(Coordinator)
- 25 /03/2006 Workshop "SPSS Data Entering and Analysis". Organized by University of Putra International Student Association (UPMISA). Held at University of Putra, Malaysia (UPM), Malaysia (Coordinator)

#### Languages:

<u>Language</u>	Reading	<u>Writing</u>	<u>Conversation</u>
Arabic (Native)	Excellent	Excellent	Excellent
English	Excellent	Excellent	Excellent

## **Research interests:**

- Community Nutrition fields
- Obesity and cardiovascular diseases
- Household Food security
- Impact of Environmental Factors on health
- Food processing and health
- Health benefits of dietary fibers
- Food Science and Technology

## **Membership:**

- Agricultural Engineers Association, Jordan, since 27/7/1998.
- Nutrition Society of Malaysia (NSM), Malaysia since 1/1/2005
- Charities for Children with Pulmonary Diseases since 01/05/2024

**References:** Upon request