

# Curriculum Vitae of Bahaa Medlej

## Personal Information

### Address:

Mobile: +972 53 2701971; Work: +972 3 6407306

Email: bahaamedlej@gmail.com

Social status: married + 4

Date of birth: Dec. 10<sup>th</sup>, 1971

## Education

2005-2010 School: Tel-Aviv University

Degree earned: PhD

Study Emphasis: anatomy and physical anthropology

2003-2005 School: Tel Aviv University

Degree earned: thesis defense (MS equivalent)

1991-1998 School: I.M. Sechenov First Moscow State Medical University

Degree earned: MD

## Professional Experience

### Sackler Faculty of Medicine, Tel-Aviv University

2010-present Advanced imaging methods (via use of CT, MRI, and Ultrasound) developer and educator

2008-present Curriculum developer and anatomy lecturer

2004-present Human anatomy dissections instructor for classes in Hebrew (Israeli students), and for classes in English (New York State Program students), histology in plastic impeding technique and human bodies or body parts plastination in S-10 and P-40 technique.

### National Center of Forensic Medicine, Abu kabir, Israel

2010-2014 Head of Forensic Anthropology Department

## Academic Courses Taught Internationally

### International academy of legal medicine (Forensic Anthropology Society of Europe FASE)

September 2013 FASE advanced course on postmortem interval. Heidelberg, Germany.

### University of Murcia, Spain

December 2011 human body plastination using "silicone plastination technique S-10 and polyester b P-40"

### Mercyhurst University, Erie, USA

June 2008 Field Methods in the Location, Recovery, and Interpretation of Human Remains from Outdoor Contexts

June 2008 Laboratory Methods in the Identification of Human Remains

June 2008 Analysis of Bone Trauma and Pseudo-Trauma in Suspected Violent Deaths

June 2008 Documentation of Human Remains and Physical Evidence at the Terrorism Crime Scene

### **Fieldwork**

- 2011, 2016      Excavation at Manot Cave, Israel --recovery of archeological human remains  
2004, 2010      Excavation at Meslia, Mount Carmel, Israel-- recovery of archeological human remains

### **VISITING SCIENTIST PROGRAMS IN FORENSIC ANTHROPOLOGY**

February 2011 - Forensic Anthropology Department- north Texas university- Denton  
Practicing advanced methods in identification of human remains using computerized software (sex and age in particular) and new borne skeletons analysis. And Osteon writing forensic reports.

- a. Blunt trauma
- b. Blade trauma (including chop injuries)
- c. Ballistic trauma

### **Scientific Meetings Attended**

- 2016      21<sup>st</sup> European Meeting of the Paleopathology Association, Moscow, Russia  
2014      18<sup>th</sup> International Federation of Associations of Anatomists, Beijing, China  
2014      Crime Scene Analysis and Victim Identification Forum, Forum for Disaster Victim Identification, Forum for Mass Grave Victim Identification, London, UK  
2013      FACE Advanced Course on Postmortem Interval and FASE 10<sup>th</sup> Anniversary Symposium  
2012      16<sup>th</sup> International Conference of the ISP (International Society for Plastination), Beijing, China  
2012      19<sup>th</sup> European Meeting of the Paleopathology Association, Lille, France  
2010      46<sup>th</sup> Annual Forensic Dental Identification & Emerging Technologies, Armed Forces Institute of Pathology, Scottsdale, USA  
2009      17<sup>th</sup> Congress of the International Federation of Association of Anatomists, Cape Town, SA  
2008      9<sup>th</sup> Annual Meeting of the Israel Spine Society, Eilat, Israel  
2007      9<sup>th</sup> Congress of European Association of Clinical Anatomy, Prague, Czech Republic  
2007      6<sup>th</sup> Interdisciplinary World Congress on Low Back & Pelvic Pain, Barcelona, Spain  
2007      9<sup>th</sup> International Interim Conference on Plastination, Ann Arbor University, Michigan  
2005      18<sup>th</sup> International Symposium on Morphological Sciences, Belgrade, Serbia

### **Papers Presented at Scientific Meetings**

Sella-Tunis, T., Peled. N., Vered, M., Feldman, M., Abramov, J., **Medlej, B.**, Vardimon, A. & Hershkovitz, I. Unusual pathology in a human male mandible dating from the PPNB period, Yiftahel, Israel. 19<sup>th</sup> European Meeting of the Paleopathology Association, Lille, France, 2012.

**Bahaa M**, Slon V, Hershkovits I. Histopathological evaluation of biomedical devices using plastic embedding technique. 16<sup>th</sup> International Conference of the ISP (International Society for Plastination) 2012, Beijing, China

**Medlej, B.**, Abbas, J., May, H., Dar, G., Stein, D., Cohen, H. & Hershkovitz, I. Using femoral head and neck lesions to predict habitual activities in ancient populations. 19<sup>th</sup> European Meeting of the Paleopathology Association, Lille, France, 2012.

Cohen, H., Slon, V., Barash, A., May, H., **Medlej, B.**, & Hershkovitz, I. Ancient reliefs, bone trauma and present forensic case shed light on the Assyrian army brutality. 19<sup>th</sup> European Meeting of the Paleopathology Association, Lille, France, 2012.

Masharawi, Y., Dar, G., Peleg, S., Bechar, A., Steinberg, N., **Medlej, B.**, Abbas, J., May, H., & Hershkovitz, I. Sexual dimorphism in the thoracic and lumbar vertebrae as a morphological adaptation to lumbar hyperlordosis during pregnancy. 8<sup>th</sup> annual meeting of the Israeli Physiotherapist Society (IPTS), Israel, 2009.

**Medlej, B.**, Masharawi, M., Dar, G., Stein, D., Steinberg, N., Abbas, J., May, H., Cohen, H., & Hershkovitz, I. The anatomy of the hip joint: its association with femoral head-neck lesions. 17<sup>th</sup> Congress of the International Federation of Associations of Anatomists, Cape Town, South Africa, 2009. Proceedings book, p. 111.

May, H., Dar, G., Abbas, J., Hay, J., **Medlej, B.**, & Hershkovitz, I. The clinical significance of hyperostosis frontalis interna. 17<sup>th</sup> Congress of the International Federation of Associations of Anatomists. Cape Town, South Africa. 2009. Proceedings book, p. 226.

Cohen, H., May, H., Abbas, J., **Medlej, B.**, Hay, H., Stein, D., Hershkovitz, I., & Brosh, T. Fracture Surface Analysis: A Forensic Perspective. Abstract book of the 17<sup>th</sup> Congress of the International Federation of Associations of Anatomists. Cape Town, South Africa. 2009. p. 243.

Stein D., Abbas, J., **Medlej, B.**, Cohen H., May, H., Ori, H., Gali, D., Hershkovitz, I. MRI-Histology Based Investigation of the Annulus Fibrosus Microstructure and Novel insights on its Failure mechanics in the Light of Evolutionary Medicine. Abstract book of the 17<sup>th</sup> Congress of the International Federation of Associations of Anatomists. Cape Town, South Africa. 2009. p. 108.

Abbas, J., Masharawi, Y., Hamoud, K., **Medlej, B.**, May, H., Sarig, R., Cohen, H., Peled, N., Hershkovitz, I. Ligamentum Flavum hypertrophy: mographical aspects. Abstract book of the 8<sup>th</sup> Research Fair of the Sackler Faculty of Medicine, Tel-Aviv University, Israel. 2008. p. 6.

Peleg, S., Dar, G., Steinberg, N., Masharawi, Y., Alperovitch-Najenson, D., **Medlej, B.**, Arensburg, B., & Hershkovitz, I. Spondylolysis, Scheuermann's kyphosis and sacral anatomical orientation. The 9<sup>th</sup> Annual Israel Spine Society Meeting, Eilat, Israel, 2008. Proceedings book, p. 36.

Steinberg, N., Siev-Ner, I., Peleg, S., Dar, G., Masharawi, Y., **Medlej, B.**, & Hershkovitz, I. Spinal injuries and low back pain in young dancers. The 9th Annual Israel Spine Society Meeting, Eilat, Israel, 2008. Proceedings book, p. 48.

**Medlej, B.**, Greenwald, C., Dar, G., Peleg, S., Steinberg, N., Masharawi, Y., & Hershkovitz, I. Lesions in the femoral head and neck and their possible association with low back pain. The 9<sup>th</sup> Annual Israel Spine Society Meeting, Eilat, Israel, 2008. Proceedings book, p. 50.

Peleg, S., Peled, N., Dar, G., Steinberg, N., Masharawi, Y., Alperovitch-Najenson, D., **Medlej, B.**, Arensburg, B., & Hershkovitz, I. Sacral anatomical orientation: its association with spinal deformities and spondylolysis. 6<sup>th</sup> Interdisciplinary World Congress on Low Back & Pelvic Pain, Barcelona, Spain, 2007.

**Medlej, B.**, Greenwald, C., Dar, G., Peleg, S., Steinberg, N., Masharawi, Y., Abbas, J., & Hershkovitz, I. Lesions in the femoral head and neck and their possible association with pelvic Pain. 6<sup>th</sup> Interdisciplinary World Congress on Low Back & Pelvic Pain, Barcelona, Spain, 2007.

Peleg, S., Dar, G., Steinberg, N., Masharawi, Y., Alperovitch-Najenson, D., **Medlej, B.**, Arensburg, B., & Hershkovitz, I. Sacral anatomical orientation: its association with abnormal spinal alignment. 9<sup>th</sup> Congress of European Association of Clinical Anatomy, Prague, Czech Republic, 2007.

Dar, G., Masharawi, Y., Peleg, S., Steinberg, N., **Medlej, B.**, Alperovitch-Najenson, D., & Hershkovitz, I. Clinical aspects of sacroiliac joint bridging. 9<sup>th</sup> Congress of European Association of Clinical Anatomy, Prague, Czech Republic, 2007.

Steinberg, N., Siev-Ner, I., Peleg, S., Dar, G., Masharawi, Y., Alperovitch-Najenson, D., **Medlej, B.**, & Hershkovitz, I. Injuries in young dancers, aged 8 to 16 years. 9<sup>th</sup> Congress of European Association of Clinical Anatomy, Prague, Czech Republic, 2007.

**Medlej, B.**, Greenwald, C., Dar, G., Peleg, S., Steinberg, N., Masharawi, Y., Abbas, J., & Hershkovitz, I. Femoral head and neck lesions and their association with pelvic architecture. 9<sup>th</sup> Congress of European Association of Clinical Anatomy, Prague Czech Republic, 2007.

Masharawi, Y., Dar, G., Peleg, S., Steinberg, N., **Medlej, B.**, Ezra, D., Alperovitch-Najenson, D., & Hershkovitz, I. Facet and interfacet shape and orientation in spondylosis: a skeletal study. 7<sup>th</sup> Research Fair, Tel-Aviv University, Israel, 2006.

Ezra, D., Salame, K., Peleg, S., Been, E., Marom, A., Steinberg, N., Alpeprovich-Najenson, D., Dar, G., **Medlej, B.**, & Hershkovitz, I. Ossous changes with age in the vertebral foramen of the cervical spine (C3-C7): a skeletal population study. 7<sup>th</sup> Research Fair, Tel-Aviv University, Israel, 2006.

Dar, G., Peleg, S., Masharawi, Y., Steinberg, N., Ezra, D., **Medlej, B.**, & Hershkovitz, I. The phenomenon of sacroiliac joint bridging in the human spine. 6<sup>th</sup> Research Fair, Tel-Aviv University, Israel, 2005. Proceedings book, p.4.

**Bahaa M**, Greenwald C, Dar G, Peleg S, Steinberg N, Hershkovitz I. The anatomy of the hip joint and its relationship to various lesions in the femoral head and neck. 18th International Symposium on Morphological Sciences, Belgrade, Serbia 2005.

## Published Journal Articles

- Cohen, H., Kugel, C., May, H., **Medlej, B.**, Stein, D., Slon, V., ... & Brosh, T. (2016). The impact velocity and bone fracture pattern: forensic perspective. *Forensic Science International*, 266, 54-62.
- Slon, V., Stein, D., Cohen, H., **Medlej, B.**, Peled, N., & Hershkovitz, I. (2014). Hyperostotic bone disease in a wombat (*Vombatus ursinus*). *Research in Veterinary Science*, 97(1), 88-95.
- Slon, V., Stein, D., Cohen, H., Medlej, B., Peled, N., & **Hershkovitz, I.** (2014). Hyperostotic bone disease in a wombat (*Vombatus ursinus*). *Research in Veterinary Science*, 97(1), 88-95.
- May, H., Cohen, H., **Medlej, B.**, Kornreich, L., Peled, N., & Hershkovitz, I. (2013). Computer tomography-enhanced anatomy course using enterprise visualization. *Anatomical Sciences Education*, 6(5), 332-341.
- Cohen, H., Slon, V., Barash, A., May, H., **Medlej, B.**, & Hershkovitz, I. (2012). Assyrian attitude towards captive enemies: A 2700 years old paleo-forensic study. *International Journal of Osteoarchaeology*, 25(3), 265-280.
- Cohen, H., Sarrie, I., **Medlej, B.**, Bouquotien, F., Toledano, T., Slon, V., & Hershkovitz, I. (2012). Trauma to the skull: A historical perspective from the southern Levant (4300BCE-1917CE). *International Journal of Osteoarchaeology*, 24(6), 722-736.
- Cohen, H., Slon, V., Barash, A., May, H., **Medlej, B.** & Hershkovitz, I. (2012). Assyrian attitude towards captive enemies: A 2700 Years Old Paleo-Forensic Study. *International Journal of Osteoarchaeology*, 25(3), 265-280.
- Dar, G., Masharawi, Y., Peleg, S., Steinberg, N., May, H., **Medlej, B.**, Peled, N., & Hershkovitz, I. (2011). The epiphyseal ring: a long forgotten anatomical structure with significant physiological function. *Spine*, 36(11), 850-856.
- May, H., Peled, N., Dar, G., Cohen, H., Abbas, J., **Medlej, B.**, & Hershkovitz, I. (2011). Hyperostosis frontalis interna: criteria for sexing and aging a skeleton. *International Journal of Legal Medicine*, 125(5), 669-673.
- Dar, G., Masharawi, Y., Peleg, S., Steinberg, N., May, H., **Medlej, B.**, Peled, N., & Hershkovitz, I. (2011). The epiphyseal ring: A long forgotten anatomical structure with significant physiological function. *Spine*, 36(11), 850-856.
- May, H., Peled, N., Dar, G., Abbas, J., **Medlej, B.**, Masharawi, Y., & Hershkovitz, I. (2010). Hyperostosis frontalis interna and androgen suppression. *The Anatomical Record*, 293(8), 1333-1336.
- Abbas, J., Hamoud, K., Masharawi, Y. M., May, H., Hay, O., **Medlej, B.**, Peled, N., & Hershkovitz, I. (2010). Ligamentum flavum thickness in normal and stenotic lumbar spines. *Spine*, 35(12), 1225-1230.
- Masharawi, Y., Dar, G., Peleg, S., Steinberg, N., **Medlej, B.**, May, H., Abbas, J., & Hershkovitz, I. (2010). A morphological adaptation of the thoracic and lumbar vertebrae to lumbar hyperlordosis in young and adult females. *European Spine Journal*, 19(5), 768-773.

- Abbas, J., Hamoud, K., May, H., Hay, O., **Medlej, B.**, Masharawi, Y., Peled, N., & Hershkovitz, I. (2010). Degenerative lumbar spinal stenosis and lumbar spine configuration. *European Spine Journal*, 19(11), 1865-1873.
- May, H., Peled, N., Dar, G., Cohen, H., Abbas, J., **Medlej, B.**, & Hershkovitz, I. (2010). Hyperostosis frontalis interna: criteria for sexing and aging a skeleton. *International Journal of Legal Medicine*, 125(5), 669-673.
- Dar, G., Masharawi, Y., Peleg, S., Steinberg, N., May, H., **Medlej, B.**, Peled, N., & Hershkovitz, I. (2010). Schmorl's nodes distribution in the human spine and its possible etiology. *European Spine Journal*, 19(4), 670-675.
- Lakstein, D., Kopelovitch, W., Barkay, Z., **Bahaa, M.**, Hendel, D., & Eliaz, N. (2009). Enhanced osseointegration of grit-blasted, NaOH-treated and electrochemically hydroxyapatite-coated Ti-6Al-4V implants in rabbits. *Acta Biomaterialia*, 5(6), 2258-2269.
- Masharawi, Y. M., Peleg, S., Albert, H. B., Dar, G., Steinberg, N., **Medlej, B.**, Abbas, J., Salame, K., Mirovski, Y., Peled, N., & Hershkovitz, I. (2008). Facet asymmetry in normal vertebral growth: characterization and etiologic theory of scoliosis. *Spine*, 33(8), 898-902.
- Masharawi, Y. M., Peleg, S., Albert, H. B., Dar, G., Steinberg, N., **Medlej, B.**, ... & Hershkovitz, I. (2008). Facet asymmetry in normal vertebral growth: characterization and etiologic theory of scoliosis. *Spine*, 33(8), 898-902.
- Peleg, S., Dar, G., **Medlej, B.**, Steinberg, N., Masharawi, Y., Latimer, B., Jellema, L., Peled, N., Arensburg, B., & Hershkovitz, I. (2007). Orientation of the human sacrum: anthropological perspectives and methodological approaches. *American Journal of Physical Anthropology*, 133(3), 967-977.
- Peleg, S., Dar, G., **Medlej, B.**, Steinberg, N., Masharawi, Y., Latimer, B., Jellema, L., Peled, N., Arensburg, B., & Hershkovitz, I. (2007). Orientation of the human sacrum: anthropological perspectives and methodological approaches. *American Journal of Physical Anthropology*, 133(3), 967-977.
- Athamna, A. N., Massalha, M., Nura, A., **Medlej, B.**, Ofek, I., Bast, D., & Rubinstein, E. (2004). In vitro susceptibility of *Bacillus anthracis* to various antibacterial agents and their time-kill activity. *Journal of Antimicrobial Chemotherapy*, 53(2), 247-251.
- Athamna, A., Athamna, M., **Medlej, B.**, Bast, D. J., & Rubinstein, E. (2004). In vitro post-antibiotic effect of fluoroquinolones, macrolides, beta-lactams, tetracyclines, vancomycin, linezolid, chloramphenicol, quinupristin/dalfopristin and refampicin on *bacillus anthracis*. *Journal of Antimicrobial Chemotherapy*, 53(4), 609-615.

## Published Books

- Medlej, B.** and Hershkovitz, I. (2012). *Femoral head and neck anatomy and pathology: Anatomy of the hip joint and its relation to lesions in the femoral head and neck*. Saarbrucken: Lambert Academic Publishing.