

CORRICULUM VITAE

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Education

1. Studies for **PhD degree**, Feinberg Graduate School of the Weizmann Institute of Science, Rehovot, Israel. Department of Molecular Genetics. Research topic: "PGC-1 α - its role in HBV life cycle and its post-translational regulation by a metabolic circuit". PI: Prof. Yosef Shaul (2005-2008). **PhD degree, September 2008**.
2. Studies for **MSc degree**, Feinberg Graduate School of the Weizmann Institute of Science, Rehovot, Israel. Department of Molecular Genetics. Research topic: "Inhibition of Hepatitis B Expression and Replication by RNA Interference". PI: Prof. Yosef Shaul (2002-2003). **MSc degree (with distinction), November 2003**.
3. Studies for **MD degree**, The Hebrew University, Jerusalem, Israel, Faculty of Medicine (1994-2001). **M.D degree, January 2002**.

Post Graduate Training

1. An **Instructor in Clinical Investigation**, clinical scholar program, the laboratory of virology and infectious diseases, the Rockefeller University, NYC, NY, USA.
PI: Prof Charles M. Rice. (2012-)
2. **Fellowship** in Gastroenterology and Liver Diseases at the institute of gastroenterology and liver diseases, Tel-Aviv Sourasky medical center (2009-2011).
3. **Residency** in internal medicine, Department of Medicine B, Tel-Aviv Sourasky Medical center, Tel-Aviv (2008-2009) and Department of Medicine A, Hadassah University Hospital, Jerusalem (2003-2005).

Honors and awards

1. Dean award for Excellency in first year studies- The Hebrew University Medical school (1994)
2. Dean's prize of excellence for M.Sc students, Feinberg Graduate School, Weizmann Institute of Science (2003)
3. Distinction in Internal Medicine Board exams (Stage B) (2009)

4. Included in the dean's list of best teachers, Sackler Faculty of Medicine, Tel-Aviv University (2010-2012)

Professional Licenses and Board Certifications:

1. Certified to practice **medicine**, the Israeli Ministry of Health (2002)
2. Certified as a specialist in **Internal Medicine**, the Israeli Ministry of Health (2009)
3. Certified as a specialist in **Gastroenterology and Liver Diseases**, the Israeli Ministry of Health (2012)
4. Certified by the **ECFMG**, USA (2012)
5. Limited permit to practice Medicine, NYS (Rockefeller University Hospital) (2012-2014)

Academic Appointments:

1. **Instructor in Clinical Investigation**, the Laboratory of Virology and Infectious Diseases, the Rockefeller University, NY, USA (2012-)
2. A **Faculty member** at a **Lecturer** degree, the Sackler Faculty of Medicine, Tel-Aviv University (2010-)

Hospital Appointments:

1. A **senior physician**, the Institute of Gastroenterology and Liver Diseases, Tel-Aviv Sourasky Medical Center, Tel-Aviv, Israel (currently on a research vacation)
2. **Head of a research group**, laboratory of gastroenterology and liver diseases, Tel-Aviv Sourasky Medical Center. Research topic: viral hepatitis and liver metabolism (2009-)

Membership in professional societies and scientific journals

1. Member of the American association for the study of liver diseases (AASLD)
2. Member of the European association for the study of the liver (EASL)
3. Member of the Israeli association for the study of liver diseases (IASLD)
4. Member Association for Clinical and Translational Science (USA) (2013-)
5. Member of the editorial board- *World Journal of Hepatology (WJH)* (2010)
6. Contributing Associate Editors-in-Chief of the *World Journal of Gastroenterology (WJG)* (2011)
7. Member of the editorial board- *Journal of anti-virals and anti-retrovirals* (2011)
8. Member of the Editorial Board- Liver International (2013-)

Reviewer for journals and grants

1. Research grant from the chief scientist, the Israeli ministry of health
2. Research grant from the Israeli cancer association (ICA)
3. Research grant from the Israel Science Foundation (ISF)
4. World journal of gastroenterology
5. Digestive Diseases and Sciences
6. Liver International
7. Plos Pathogens
8. J Viral Hepatitis

Grants and fellowships

1. A physician-scientist grant, Hadassah Medical Center (2004)
2. Zalsberg grant, Hadassah Medical Center (2004)
3. Adams fellowship for PhD students from the Israeli Academy of Science (2006)
4. The Weizmann-Ichilov joint grant (with Prof Y. Shaul) (2008)
5. The Ichilov grant for excellence (2009)
6. Israel Cancer Association (ICA) grant (with distinction) (2010)
7. Schraiber grant from the Sackler Faculty of Medicine, Tel-Aviv University (2010)
8. Maria Ascoli-Rossi grant from the Israeli Ministry of Justice (with Dr EH Sklan, TAU) (2011)
9. A young researcher grant from the Israeli Society for the Study of the Liver (with Dr EH Sklan, TAU) (2012)
10. CDDS pilot award, the Rockefeller University (2012)

Conference organization

1. The first Israeli conference of hepatitis viruses and HCC, May 2009, Tel-Aviv Sourasky Medical Center, Tel-Aviv.
2. Chairperson and organizer of the clinical virology session, the annual conference of the Israeli Society of Microbiology (ISM), February 2010, Bar-Ilan University, Israel.
3. The second Israeli conference of hepatitis viruses and HCC, June 2010, Tel-Aviv Sourasky Medical Center, Tel-Aviv.

Teaching Experience

1. Clinical teaching of medical students, Department of medicine B, Tel-Aviv Sourasky Medical Center
2. Lecturer in the course “systems physiology”, New-York program medical students, TAU. Lectures on the topics: “ Physiology of the liver and the biliary system”, “Physiology of the pancreas”
3. Lecturer in the course “systems physiology”, New-York program medical students, TAU. Lectures on the topics: “ Physiology of the liver and the biliary system”, “Physiology of the pancreas”
4. Lecturer in the course “GI tract”, the 4-year program of medical students, TAU. Lectures on the topics: “viral hepatitis”, “cirrhosis and its complications”, “acute hepatic failure”

Mentoring Students and Fellows

1. Iddo Bar-Yishay (MS.c student, with Prof. Z. Halpern)
2. Olga Burdelova (Post-doc)

Publications

Original peer-reviewed Articles

1. Gotsman, I., **Shlomai, A.**, Alper, R., Rabbani, E., Engelhardt, D., and Ilan, Y. 2001. Amelioration of immune-mediated experimental colitis: tolerance induction in the presence of preexisting immunity and surrogate antigen bystander effect. *J Pharmacol Exp Ther* 297:926-932.
2. **Shlomai, A.**, Trop, S., Gotsman, I., Jurim, O., Diment, J., Alper, R., Rabbani, E., Engelhardt, D., and Ilan, Y. 2001. Immunomodulation of experimental colitis: the

- role of NK1.1 liver lymphocytes and surrogate antigens--bystander effect. *J Pathol* 195:498-507.
3. **Shlomai, A.**, and Shaul, Y. 2003. Inhibition of hepatitis B virus expression and replication by RNA interference. *Hepatology* 37:764-770.
 4. **Shlomai, A.**, Paran, N., and Shaul, Y. 2006. PGC-1alpha controls hepatitis B virus through nutritional signals. *Proc Natl Acad Sci U S A* 103:16003-16008.
 5. **Shlomai, A.**, and Shaul, Y. 2008. The "metabolovirus" model of hepatitis B virus suggests nutritional therapy as an effective anti-viral weapon. *Med Hypotheses* 71:53-57.
 6. **Shlomai, A.**, Lubelsky, Y., Har-Noy, O., and Shaul, Y. 2009. The "Trojan horse" model-delivery of anti-HBV small interfering RNAs by a recombinant HBV vector. *Biochem Biophys Res Commun* 390:619-623.
 7. **Shlomai, A.**, and Shaul, Y. 2009. The metabolic activator FOXO1 binds hepatitis B virus DNA and activates its transcription. *Biochem Biophys Res Commun* 381:544-548.
 8. Rechtman, M.M., Har-Noy, O., Bar-Yishay, I., Fishman, S., Adamovich, Y., Shaul, Y., Halpern, Z., and **Shlomai, A.** 2010. Curcumin inhibits hepatitis B virus via down-regulation of the metabolic coactivator PGC-1alpha. *FEBS Lett* 584:2485-2490.
 9. **Shlomai, A.**, Kariv, R., Leshno, M., Beth-or, A., Sheinberg, B., and Halpern, Z. 2010. Large-scale population analysis reveals an extremely low threshold for "non-healthy" alanine aminotransferase that predicts diabetes mellitus. *J Gastroenterol Hepatol* 25:1687-1691.
 10. **Shlomai, A.**, Nutman, A., Kotlovsky, T., Schechner, V., Carmeli, Y., and Guzner-Gur, H. 2010. Predictors of pandemic (H1N1) 2009 virus positivity and adverse outcomes among hospitalized patients with a compatible syndrome. *Isr Med Assoc J* 12:622-627.
 11. Ben-Shlomo, S., Zvibel, I., Shnell, M., **Shlomai, A.**, Chepurko, E., Halpern, Z., Barzilai, N., Oren, R., and Fishman, S. 2011. Glucagon-like peptide-1 reduces hepatic lipogenesis via activation of AMP-activated protein kinase. *J Hepatol* 54:1214-1223.
 12. Tchebiner, J.Z., Nutman, A., Boursi, B., **Shlomai, A.**, Sella, T., Wasserman, A., and Guzner-Gur, H. 2011. Diagnostic and prognostic value of thrombocytosis in admitted medical patients. *Am J Med Sci* 342:395-401.
 13. Zelber-Sagi, S., Yeshua, H., **Shlomai, A.**, Blendis, L., Leshno, M., Levit, S., Halpern, Z., and Oren, R. 2011. Sampling variability of transient elastography according to probe location. *Eur J Gastroenterol Hepatol* 23:507-514.
 14. Ben-Shlomo, S., Einstein, F.H., Zvibel, I., Atias, D., **Shlomai, A.**, Halpern, Z., Barzilai, N., and Fishman, S. 2012. Perinephric and epididymal fat affect hepatic metabolism in rats. *Obesity (Silver Spring)* 20:151-156.
 15. **Shlomai, A.**, Rechtman, M.M., Burdelova, E.O., Zilberberg, A., Hoffman, S., Solar, I., Fishman, S., Halpern, Z., and Sklan, E.H. 2012. The metabolic regulator PGC-1alpha links hepatitis C virus infection to hepatic insulin resistance. *J Hepatol* 57:867-873.
 16. Ben-Shlomo, S., Zvibel, I., Rabinowich, L., Goldiner, I., **Shlomai, A.**, Santo, E.M., Halpern, Z., Oren, R., and Fishman, S. 2013. Dipeptidyl Peptidase 4-Deficient Rats Have Improved Bile Secretory Function in High Fat Diet-Induced Steatosis. *Dig Dis Sci*. 58(1):172-8

17. Zelber-Sagi, S., Lotan, R., **Shlomai, A.**, Webb, M., Harrari, G., Buch, A., Nitzan Kaluski, D., Halpern, Z., and Oren, R. 2012. Predictors for incidence and remission of NAFLD in the general population during a seven-year prospective follow-up. *J Hepatol* 56:1145-1151.
18. Moulouk, M., Burdelova, E.O., Bar-Yishay, I., Ben-Yehoyada, M., Fishman, S., Halpern, Z., and **Shlomai, A.** 2013. The metabolic regulator PGC-1alpha links anti-cancer cytotoxic chemotherapy to reactivation of hepatitis B virus. *J Viral Hepat* 20:34-41.
19. **Shlomai, A.**, Halfon, P., Goldiner, I., Zelber-Sagi, S., Halpern, Z., Oren, R., and Bruck, R. 2013. Serum bile acid levels as a predictor for the severity of liver fibrosis in patients with chronic hepatitis C. *J Viral Hepat* 20:95-102.
20. Adamovich, Y., **Shlomai, A.**, Tsvetkov, P., Umansky, K.B., Reuven, N., Estall, J.L., Spiegelman, B.M., and Shaul, Y. 2013. The protein level of PGC-1alpha, a key metabolic regulator, is controlled by NADH-NQO1. *Mol Cell Biol*. 2013 May 6 (DOI:10.1128/MCB.01672-12)

Reviews and Guidelines

1. **Shlomai, A.**, and Shaul, Y. 2004. RNA interference--small RNAs effectively fight viral hepatitis. *Liver Int* 24:526-531.
2. Bar-Yishay, I., Shaul, Y., and **Shlomai, A.** 2011. Hepatocyte metabolic signalling pathways and regulation of hepatitis B virus expression. *Liver Int* 31:282-290.
3. Sikuler, E., Ackerman, Z., Braun, M., Baruch, Y., Bruck, R., Safadi, R., **Shlomai, A.**, and Ben-Ari, Z. 2012. [Guidelines for diagnosis and management of cirrhotic ascites and its complications. The Israeli Association for the Study of the Liver]. *Harefuah* 151:705-708, 719.

Case reports, Letters and Editorials

1. **Shlomai, A.**, Hershko, A.Y., Gabbay, E., and Ben-Chetrit, E. 2004. Clinical and radiographic features mimicking pulmonary embolism as the first manifestation of Takayasu's arteritis. *Clin Rheumatol* 23:470-472.
2. **Shlomai, A.**, and Guzner-Gur, H. 2010. Ectopic splenomegaly. *Intern Med J* 40:600.
3. **Shlomai, A.** 2012. Targeting late SV40 factor: Is the achilles heel of hepatocarcinogenesis revealed? *World J Gastroenterol* 18:6709-6711.

Abstracts and Conferences

1. Inhibition of HBV expression and replication by RNA interference (oral). The first conference of the Israeli Society of Gene Therapy (ISGT), (12/02), the Weizmann Institute of Science (2003)
2. Inhibition of HBV expression and replication by RNA interference (oral). The conference of the Israeli society for the study of liver diseases (2/03), Haifa, Israel.
3. Inhibition of HBV expression and replication by RNA interference" (poster#180) The annual molecular biology of HBV conference, Bergamo, Italy (10/03)
4. The "Trojan horse" model- delivery of anti HBV small interfering RNAs using a recombinant HBV vector (oral). The conference of the Israeli society for the study of liver diseases (2/04), Eilat, Israel

- 5.** A cross-talk between metabolic alterations in the liver and HBV gene expression (oral). The conference of the Israeli society for the study of liver diseases (3/06), Eilat, Israel
- 6.** Nutritional signals regulate HBV through the metabolic coactivator Pgc1 α (poster). The FASEB conference on “liver growth, development and disease”, July 2006, Snowmass village, Colorado, USA.
- 7.** PGC-1 controls hepatitis B virus through nutritional signals (oral). The annual conference of the Israeli society of microbiology (ISM), Bar-Ilan University (2/07).
- 8.** Evidence that Hepatitis B virus interacts with hepatic metabolic circuits to induce major liver pathologies (oral). The annual conference of the Israeli society for the study of liver diseases (3/09 Kfar Bloom).
- 9.** Colitis- from diarrhea to DALM: new insights, new controversies (An invited lecture/case presentation). ASNEMGE/EAGE 6th European School of Gastroenterology (June 2009, Prague).
- 10.** Major metabolic circuits in the liver regulate hepatitis B virus and are a potential target for anti viral therapy” (Abstract 406, Hepatology 50;4 (suppl) 497A). The AASLD annual conference (October-November 2009, Boston, USA).
- 11.** Nutritional cues regulate hepatitis B virus and are a potential target for anti viral therapy (oral). The annual conference of the Israeli society for the study of liver diseases (3/10, Kfar Bloom).
- 12.** Hepatitis B virus as a metabolovirus (invited speaker), department of microbiology, Sackler Faculty of Medicine, TAU (2010).
- 13.** Hepatitis B virus up-regulates its own coactivator PGC-1 alpha resulting in hepatic metabolic alterations” (Abstract 1429, Hepatology 52;4 (suppl) 1007 A). The AASLD annual conference (October-November 2010, Boston, USA).
- 14.** I. Anti cancer chemotherapy directly up-regulates hepatitis B virus via the metabolic coactivator PGC-1 α . II. Blood bile acids levels as a non-invasive tool to assess the severity of non-cholestatic liver diseases (oral). The annual meeting of the Israeli Society of Gastroenterology and Liver Diseases, (January 2011, Eilat).
- 15.** The metabolic regulator PGC-1 alpha links cancer chemotherapy to hepatitis B virus reactivation” (Abstract 1122, J Hepatol 2011;54:s444). The EASL annual meeting (March-April 2011, Berlin, Germany).
- 16.** The metabolic regulator PGC-1 α links HCV infection to hepatic insulin resistance” (Presented by Dr Ela Olga Burdelova) (poster). The Israeli Society of Microbiology fall workshop, Molecular and clinical aspects of viral infections (Kibutz Ein-Gedi, 1-3 December). (The poster was awarded an excellence prize).
- 17.** The metabolic regulator PGC-1 α links HCV infection to hepatic insulin resistance (oral). The annual meeting of the Israeli society of Gastroenterology and liver diseases, (January 2012, Eilat). (The abstract was awarded an excellence prize).
- 18.** HBV induces its own coactivator PGC-1 α via cellular oxidative stress (presented by Dr Iddo Bar-Yishay), The annual conference of the Israeli Society for the study of the liver (3/12, Kfar-Blum). (The abstract was awarded an excellence prize).
- 19.** The metabolic regulator PGC-1 α links Hepatitis C virus infection to hepatic insulin resistance (HEPATOLOGY, VOLUME 56, NUMBER 4 (SUPPL), poster #1050). The AASLD annual conference (Boston, November 2012).