

Name: Rita Haldar
Date of birth: 21.11.1989
Home address: 6, Zamir St., Kfar Saba

Phone number: +972-54-5839848
Email: ritakrigman@gmail.com
Marital status: married

Education

- 2016 - Today PhD in Psychobiology, Tel-Aviv University.
Supervisor: Prof. Shamgar Ben-Eliyahu.
Research field: Cancer neuro-immunology.
Subject of thesis: The effects of perioperative catecholamines and prostaglandins on metastatic progression, dormancy, and recurrence.
- 2014 - 2016 M.A. in Psychobiology, Tel-Aviv University.
Supervisor: Prof. Shamgar Ben-Eliyahu.
Research field: Cancer neuro-immunology.
Subject of thesis: Peri-operative blockade of COX2 and β -adrenoceptors in breast cancer patients: Effects on PBMCs transcriptome and serum cytokine levels.
- 2011 – 2014 B.A. in Psychology and Sociology (*Summa cum laude*), Tel-Aviv University.

Occupation

- 2016 - Today Teaching assistant at the school of psychological science, Tel-Aviv University.
- 2015 -2016 Breeding and maintenance of the laboratory mice colony at the animal facility, School of Psychological Sciences, Tel-Aviv University.

Academic and professional awards

PhD.

- 2020– David and Paulina Trotsky Foundation Award for Ph.D. Students Excellence, School of Psychological Sciences, Tel-Aviv University.
- 2019 – Travel award from CBRC for The 26th annual meeting of the Psychoneuroimmunology Research Society, Berlin, Germany.
- 2019 – Michael Irwin Diversity and Equity Award, The 26th annual meeting of the Psychoneuroimmunology Research Society, Berlin, Germany.
- 2019 – Scholarship for Excellence in research, Finkelstein Foundation, School of Psychological Sciences, Tel-Aviv University.
- 2017 – Travel award for the 24th annual meeting of the Psychoneuroimmunology Research Society, Galveston, Texas, USA.
- 2016 – 2020 – A full tuition scholarship for P.hD. studies, School of Psychological Sciences, Tel-Aviv University.

M.A.

- 2014-2016 – A full tuition scholarship for M.A. studies, School of Psychological Sciences, Tel-Aviv University.
- 2016 – Scholarship for Excellence in research, School of Psychological Sciences, Tel-Aviv University.

B.A.

- Graduated a double major in psychology and Sociology (*Summa cum laude*)
- 2014 – Dean's excellence diploma, Faculty of social sciences, Tel-Aviv University.
- 2014 – Memorialization scholarship for academic achievements, Faculty of social sciences, Tel-Aviv University.
- 2013 – Dean's excellence diploma, Faculty of social sciences, Tel-Aviv University.

2011 – Scholarship for excellent candidates, School of Psychological Sciences, Tel-Aviv University

Social activity

2016 – 2018 – Tutor in “Alpha” program, which allows gifted high-school students with a keen interest in science to participate in the world of contemporary scientific research, Tel-Aviv University, Tel-Aviv, Israel.

2012 – 2013 – Tutor, “Walking together” program for developing social and academic skills, Tel-Aviv University, Tel-Aviv, Israel.

Publications in peer-reviewed international journals

Haldar R., Ricon I., Radin A., Gutman M., Cole S.W., Zmora O., and Ben-Eliyahu S. Improving colorectal cancer biomarkers of pro-metastatic transcriptional activity, EMT, immunity, and inflammation by perioperative inhibition of β -adrenergic and COX2 signaling in a phase-II clinical trial (In press, *cancer*, Feb 2020).

Haldar R., Rossene E., Shaashua L., Sloan E.K., Geiger T., Radin A., and Ben-Eliyahu S. Abstract #4304 Tumor-secreted factors are elevated by surgery-induced sympathetic-inflammatory responses and promote the outbreak of human breast cancer dormant micrometastases. *Brain, Behav Immun* 81: 26, (2019).

Eckerling A*, Sandbank E*, Scarlet S., Levine T., **Haldar R.**, Rossene E., and Ben-Eliyahu S. Abstract #4310 The potential clinical use of CpG-C immune stimulation in the stressful context of oncological surgery. *Brain, Behav Immun* 81: 27-28, (2019).

Sandbank E., Scarlet S., Levine T., Eckerling A., **Haldar R.**, Rossene E., and Ben-Eliyahu S. Abstract #4313 Perioperative stress and hypothermic responses jeopardize beneficial effects of immune stimulation by CpG-C: Partial mediation through glucocorticoid responses. *Brain, Behav Immun* 81: 28, (2019).

Hanalis-Miller T., Ricon I., **Haldar R.**, Eckerling A., Scarlet S., Levine T., Sharon E., Goldzweig G., Magem A., Jacoby R., and Ben-Eliyahu S. Abstract #4317 Peri-operative novel psychological intervention in breast cancer patients aiming to reduce stress responses and improve biomarkers of cancer progression. *Brain, Behav Immun* 81: 29, (2019).

Matzner P., Sorski L., **Haldar R.**, Shaashua L., Benbenishty A., Lavon H., Azan Y., Sandbank, E., Melamed, R., Rosenne, E. and Ben-Eliyahu, S. Deleterious synergistic effects of distress and surgery on cancer metastasis: Abolishment through an integrated perioperative immune-stimulating stress-inflammatory-reducing intervention. *Brain, Behav Immun* 80:170-178, (2019).

Ricon I., Hanalis-Miller T., **Haldar R.**, Jacoby R., and Ben-Eliyahu S. Perioperative bio-behavioral interventions to prevent cancer recurrence through combined inhibition of beta-adrenergic and cox2 signaling. *Cancer* 125(1): 45-56, (2019).

Haldar R., Shaashua L., Rosenne, E., Sloan, E., & Ben-Eliyahu, S. Abstract# 3082 Sympathetic-inflammatory responses in operated nude mice prevent transformation into dormancy of human breast cancer metastases: Multiple mediating mechanisms through immunity and tumor secretion of IL-6, IL-8, and VEGF. *Brain, Behav Immun* 76: e13, (2019).

Haldar R., Shaashua L., Lavon H., Zmora O., Sharon E., Birnbaum Y., Allweis T., Sood A., Barshack I., Cole S., and Ben-Eliyahu S. Perioperative inhibition of β -adrenergic and COX2 signaling in a clinical trial in breast cancer patients improves tumor Ki-67 expression, serum cytokine levels, and PBMCs transcriptome. *Brain Behav Immun* 73:294-309, (2018)

- Haldar R.** and Ben-Eliyahu S. Reducing the risk of post-surgical cancer recurrence: A perioperative anti-inflammatory anti-stress approach. *Future Oncology* 14(11): 1017-1021, (2018).
- Lavon H., Matzner P., Benbenishty A., Sorski L., Rossene E., **Haldar R.**, Elbaz E., Cata JP., Gottumukkala V., and Ben-Eliyahu S. Dexmedetomidine promotes metastasis in rodent models of breast, lung, and colon cancers. *Br J Anaesth* 120 (1):188-196,(2018).
- Shaashua L., Shabat-Simon M., **Haldar R.**, Matzner P., Zmora O., Shabtai M., Sharon M., Allweis T., Barshack I., Hayman L., Arevalo J., MA J., Horowitz M., Cole S., and Ben-Eliyahu S. Perioperative COX-2 and β -adrenergic blockade improves metastatic biomarkers in breast cancer patients in a phase-II randomized trial. *Clin Cancer Res.* 23(16):4651-4661,(2017).
- Haldar, R.**, Ricon, I., Cole, S., Zmora, O., & Ben-Eliyahu, S. Perioperative beta-adrenergic blockade and COX2 inhibition in colorectal cancer patients improves pro-metastatic indices in the excised tumor: EMT, tumor infiltrating lymphocytes (TILs), and gene regulatory pathways. *Brain Behav, Immun* 66: e9, (2017).
- Ricon, I., Hanalis-Miller, T., **Haldar, R.**, Cole, S., Sharon, E., Jacoby, R., & Ben-Eliyahu, S. Psychological and/or pharmacological short perioperative interventions to reduce cancer recurrence: A planned randomized clinical trial in breast cancer patients. *Brain Behav, Immun* 66: e15, (2017).
- Haldar, R.**, Lavon, H., Elbaz, E., Rozen, E., Shabat-Simon, M., & Ben-Eliyahu, S. Abstract# 1856 Breast cancer patients undergoing surgery and subjected to perioperative inhibition of COX-2 and β -adrenoceptor blockade: Effects on number and cytotoxicity of circulating NK cells and their relations to cytokine levels. *Brain Behav, Immun* 57: e41, (2016).

Papers in preparation

- Lavon H., Benbenishty A., Matzner P., Sorski L., Rossene E., **Haldar R.**, Elbaz E., Cata J.P., Gottumukkala V., and Ben-Eliyahu S. Dexmedetomidine increases cancer metastases: Immunological and molecular mechanisms (In preparation).
- Fogel E*., Ricon I*., **Haldar R.**, Ben-eliyahu S., Lev-Ari S. and Gidron Y. The association between vagal nerve activity and pro-inflammatory and anti-viral factors in breast cancer patients. (In preparation).

*Equal contrebution

Participation in scientific conferences – oral and poster presentations

- Haldar R.**, Rosenne E., Shaashua L., Sloan E., Geiger E., Radin A., Ben-Eliyahu S. Tumor-secreted factors are elevated by surgery-induced sympathetic-inflammatory responses and promote the outbreak of human breast cancer dormant micrometastases. Oral presentation at the 26th Annual Meeting of the Psychoneuroimmunology Research Society, Berlin, Germany (June 2019).
- Haldar R.**, Rossene E., Shaashua L., Sloan E.K., Geiger T., Radin A., and Ben-Eliyahu S. Tumor-secreted factors are elevated by surgery-induced sympathetic-inflammatory responses and promote the outbreak of human breast cancer dormant micrometastases. A poster was presented at the 26th Annual Meeting of the Psychoneuroimmunology Research Society, Berlin, Germany (June 2019).
- Eckerling A*., Sandbank E*., Scarlet S., Levine T., **Haldar R.**, Rossene E., and Ben-Eliyahu S. The potential clinical use of CpG-C immune stimulation in the stressful context of oncological surgery. A poster was presented at the 26th Annual Meeting of the Psychoneuroimmunology Research Society, Berlin, Germany (June 2019).
- Sandbank E., Scarlet S., Levine T., Eckerling A., **Haldar R.**, Rossene E., and Ben-Eliyahu S. Perioperative stress and hypothermic responses jeopardize beneficial effects of immune stimulation by CpG-

- C: Partial mediation through glucocorticoid responses. A poster was presented at the 26th Annual Meeting of the Psychoneuroimmunology Research Society, Berlin, Germany (June 2019).
- Hanalis-Miller T., Ricon I., **Haldar R.**, Eckerling A., Scarlet S., Levine T., Sharon E., Goldzweig G., Magem A., Jacoby R., and Ben-Eliyahu S. Peri-operative novel psychological intervention in breast cancer patients aiming to reduce stress responses and improve biomarkers of cancer progression. A poster was presented at the 26th Annual Meeting of the Psychoneuroimmunology Research Society, Berlin, Germany (June 2019).
- Haldar R.**, Shaashua L., Rosenne E., Sloan E., Ben-Eliyahu S. Sympathetic-inflammatory responses in operated nude mice prevent transformation into dormancy of human breast cancer metastases: Multiple mediating mechanisms through immunity and tumor secretion of IL-6, IL-8, and VEGF. Oral presentation at the 25th Annual Meeting of the Psychoneuroimmunology Research Society, Miami, Florida, USA (June 2018). This talk was given by Ben-Eliyahu S. due to personal reasons.
- Haldar R.**, Ricon I., Cole S., Zmora O., and Ben-Eliyahu S. Perioperative β -adrenergic blockade and COX2 inhibition in colorectal cancer patients improves pro-metastatic indices in the excised tumor: EMT, tumor infiltrating lymphocytes (TILs), and gene regulatory pathways. Oral presentation at the 24th Annual Meeting of the Psychoneuroimmunology Research Society, Galveston, Texas, USA (June 2017).
- Ricon I., Hanalis-Miller T., **Haldar R.**, Cole S., and Ben-Eliyahu S. Psychological and/or pharmacological short perioperative interventions to reduce cancer recurrence: A planned randomized clinical trial in breast cancer patients. A poster was presented at the 24th Annual Meeting of the Psychoneuroimmunology Research Society, Galveston, Texas, USA (June 2017).
- Haldar R.**, Shaashua L., Lavon H., Matzner P., Shabat-Simon M., Zmora O., Shabtai M., Sharon E., Allweis T., Barshak I., Cole S., and Ben-Eliyahu S. Perioperative Blockade of COX2 and β -adrenoceptors in Breast Cancer Patients Improves Markers of Inflammation, Immunity, and Primary Tumor Epithelial-to-Mesenchymal Transition. A poster was presented at the 12 Annual Sackler Research Fair, Faculty of medicine, Tel-Aviv University, Tel-Aviv, Israel (March 2017).
- Haldar R.**, Shaashua L., Lavon H., Matzner P., Sabat-Simon M., Zmora O., Shabtai M., Sharon E., Allweis T., Barshak I., Cole S., Ben-Eliyahu S. Perioperative Blockade of COX2 and β -adrenoceptors in Breast Cancer Patients Improves Markers of Inflammation, Immunity, and Primary Tumor Epithelial-to-Mesenchymal Transition. Oral presentation at the 8th Annual Meeting of the Federation of all the Israel Societies for Experimental Biology (FISEB), Eilat, Israel (February 2017).
- Haldar R.**, Lavon H., Elbaz E., Sabat-Simon M., Matzner P., Ben-Eliyahu S. Breast cancer patients undergoing surgery and subjected to perioperative inhibition of COX-2 and β -adrenoceptor blockade: Effects on cytokine levels and number and cytotoxicity of circulating NK cells. A poster was presented at the 23rd Annual Meeting of the Psychoneuroimmunology Research Society, Brighton, UK (June 2016).
- Shaashua L., Shabat-Simon m., **Haldar R.**, Shabtai M., Sharon E., Alweis T., Zmora O., Cole S., Ben-Eliyahu s. Perioperative COX-2 inhibition and beta-adrenoceptor blockade in breast cancer patients improve markers of immunity and reduce inflammation and primary tumor epithelial-to-mesenchymal transition (EMT). A poster was presented at the 23rd Annual Meeting of the Psychoneuroimmunology Research Society, Brighton, UK (June 2016).
- Lavon H., **Haldar R.**, Elbz E., Sorski L., Matzner P., Shaashua L., Benbenishty A., Cata J.P., Gottumukkala V., and Ben-Eliyahu S. The perioperative use of the sedative dexmedetomidine in cancer patients may have detrimental effects. A poster was presented at the 3rd Annual global conference on perioperative medicine, care of the cancer patient, Amsterdam, Netherlands (May 2015).