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Research

Indira is a bioinformatician who obtained a Ph.D. degree from the Department of Translational Medicine of Lund University, Sweden in 2022. She also has a master's degree in Biotechnology. In 2016 she started a career at Lund University as a data scientist in the fields of proteogenomics associated with cancer and reproductive medicine. Fields in which she is currently focused.

Employment

Statistician

Clinical Chemistry, Malmö
Lund University
Malmö, Sweden
2016 Jan 13 → present

Bioinformatician

Clinical Protein Science and Imaging
Lund University
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2017 Jun 14 → present

Division for Biomedical Engineering

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Research outputs

Proteogenomic Profiling of Treatment-Naïve Metastatic Malignant Melanoma

Kuras, M., Betancourt, L. H., Hong, R., Szadai, L., Rodriguez, J., Horvatovich, P., Pla, I., Eriksson, J., Szeitz, B., Deszcz, B., Welinder, C., Sugihara, Y., Ekedahl, H., Baldetorp, B., Ingvar, C., Lundgren, L., Lindberg, H., Oskolas, H., Horvath, Z. & Rezeli, M. & 11 others, Gil, J., Appelqvist, R., Kemény, L. V., Malm, J., Sanchez, A., Szasz, A. M., Pawłowski, K., Wieslander, E., Fenyő, D., Nemeth, I. B. & Marko-Varga, G., 2025 Feb 27, In: *Cancers*. 17, 5, p. 1-35 832.

Short-term effects of follicle-stimulating hormone on immune function, lipid, and vitamin metabolism in transiently castrated men

Guedes, J., Pla, I., Sanchez, A., Marko-Varga, G., Domont, G. B., Sahlin, K. B., Hazir, B., Giwercman, A., Nogueira, F. C. S., Malm, J. & Giwercman, Y. L., 2025, In: *Endocrine Connections*. 14, 2, e240587.

Regulation of human oocyte maturation in vivo during the final maturation of follicles

Cadenas, J., Poulsen, L. C., Nikiforov, D., Grøndahl, M. L., Kumar, A., Bahnu, K., Englund, A. L. M., Malm, J., Marko-Varga, G., Pla, I., Sanchez, A., Pors, S. E. & Yding Andersen, C., 2023 Apr 1, In: *Human Reproduction*. 38, 4, p. 686-700 15 p.

Plasma metabolome study reveals metabolic changes induced by pharmacological castration and testosterone supplementation in healthy young men

de Siqueira Guedes, J., Pla, I., Sahlin, K. B., Monnerat, G., Appelqvist, R., Marko-Varga, G., Giwercman, A., Domont, G. B., Sanchez, A., Nogueira, F. C. S. & Malm, J., 2022 Dec, In: *Scientific Reports*. 12, 1, 15931.

Novel protein markers of androgen activity in humans: proteomic study of plasma from young chemically castrated men

Giwercman, A., Sahlin, K. B., Pla Parada, I., Pawlowski, K., Fehninger, C., Lundberg Giwercman, Y., Leijonhufvud, I., Appelqvist, R., Marko-Varga, G., Sanchez, A. & Malm, J., 2022 Mar 1, In: *eLife*. 11

Proteomic Alterations in Follicular Fluid of Human Small Antral Follicles Collected from Polycystic Ovaries—A Pilot Study

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Data analysis for discovering the protein profile dynamics of the human ovarian follicular fluid and BRAF mutated metastatic melanoma tissue. -

Pla Parada, I., 2022, Lund: Lund University, Faculty of Medicine. 68 p.

Mapping the melanoma plasma proteome (MPP) using single-shot proteomics interfaced with the WiMT database

Almeida, N., Rodriguez, J., Parada, I. P., Perez-Riverol, Y., Woldmar, N., Kim, Y., Oskolas, H., Betancourt, L., Valdés, J. G., Sahlin, K. B., Pizzatti, L., Szasz, A. M., Kárpáti, S., Appelqvist, R., Malm, J., Domont, G. B., Nogueira, F. C. S., Marko-Varga, G. & Sanchez, A., 2021 Dec 1, In: *Cancers*. 13, 24, 6224.

Short-term effect of induced alterations in testosterone levels on fasting plasma amino acid levels in healthy young men

Barbara Sahlin, K., Pla, I., de Siqueira Guedes, J., Pawlowski, K., Appelqvist, R., Marko-Varga, G., Domont, G. B., Nogueira, F. C. S., Giwercman, A., Sanchez, A. & Malm, J., 2021 Nov, In: *Life*. 11, 11, 1276.

A biobanking turning-point in the use of formalin-fixed, paraffin tumor blocks to unveil kinase signaling in melanoma

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Proteome of fluid from human ovarian small antral follicles reveals insights in folliculogenesis and oocyte maturation

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The Human Melanoma Proteome Atlas-Complementing the melanoma transcriptome

Betancourt, L. H., Gil, J., Sanchez, A., Kuras, M., Velasquez, E., Kim, Y., Sugihara, Y., Parada, I. P., Appelqvist, R., Wieslander, E., Welinder, C., de Almeida, N. P., Woldmar, N., Marko-Varga, M., Eriksson, J., Baldetorp, B., Ingvar, C., Olsson, H., Lundgren, L. & Lindberg, H. & 15 others, Oskolas, H., Lee, B., Berge, E., Sjögren, M., Eriksson, C., Kim, D., Kwon, H. J., Rezeli, M., Malm, J., Horvath, P., Horvatovich, P., Miliotis, T., Ekedahl, H., Marko-Varga, G. & et al., 2021, In: *Clinical and Translational Medicine*. 11, 7, p. 1-25 e451.

The human melanoma proteome atlas-Defining the molecular pathology

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Oskolas, H., Lee, B., Berge, E., Sjögren, M., Eriksson, C., Kim, D., Kwon, H. J., Knudsen, B., Rezeli, M., Hong, R., Horvatovich, P., Miliotis, T., Nishimura, T., Kato, H., Steinfeld, E., Oppermann, M., Miller, K., Florindi, F., Zhou, Q., Domont, G. B., Pizzatti, L., Nogueira, F. C. S., Horvath, P., Szadai, L., Timar, J., Karpati, S., Szasz, A. M., Malm, J., Fenyő, D., Ekedahl, H., Németh, I. B. & Marko-Varga, G., 2021, In: *Clinical and Translational Medicine*. 11, 7, p. 1-20 e473.

Novel functional proteins coded by the human genome discovered in metastases of melanoma patients

Sanchez, A., Kuras, M., Murillo, J. R., Pla, I., Pawlowski, K., Szasz, A. M., Gil, J., Nogueira, F. C. S., Perez-Riverol, Y., Eriksson, J., Appelqvist, R., Miliotis, T., Kim, Y., Baldetorp, B., Ingvar, C., Olsson, H., Lundgren, L., Ekedahl, H., Horvatovich, P. & Sugihara, Y. & 8 others, Welinder, C., Wieslander, E., Kwon, H. J., Domont, G. B., Malm, J., Rezeli, M., Betancourt, L. H. & Marko-Varga, G., 2020 Jun, In: *Cell Biology and Toxicology*. 36, 3, p. 261-272 12 p.

Proteomic analysis enables distinction of early- versus advanced-stage lung adenocarcinomas

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A pilot proteomic study reveals different protein profiles related to testosterone and gonadotropin changes in a short-term controlled healthy human cohort

Pla, I., Sahlin, K. B., Pawlowski, K., Appelqvist, R., Marko-Varga, G., Sanchez, A. & Malm, J., 2020 May 30, In: *Journal of Proteomics*. 220, 103768.

Protein Expression in Metastatic Melanoma and the Link to Disease Presentation in a Range of Tumor Phenotypes

Kim, Y., Gil, J., Pla, I., Sanchez, A., Betancourt, L. H., Lee, B., Appelqvist, R., Ingvar, C., Lundgren, L., Olsson, H., Baldetorp, B., Kwon, H. J., Oskolás, H., Rezeli, M., Doma, V., Kárpáti, S., Szasz, A. M., Németh, I. B., Malm, J. & Marko-Varga, G., 2020 Mar 24, In: *Cancers*. 12, 3, 767.

Mass spectrometry-based analysis of formalin-fixed, paraffin-embedded distal cholangiocarcinoma identifies stromal thrombospondin-2 as a potential prognostic marker

Byrling, J., Kristl, T., Hu, D., Pla, I., Sanchez, A., Sasor, A., Andersson, R., Marko-Varga, G. & Andersson, B., 2020, In: *Journal of Translational Medicine*. 18, 1, 343.

Short-term effect of pharmacologically induced alterations in testosterone levels on common blood biomarkers in a controlled healthy human model

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Improved survival prognostication of node-positive malignant melanoma patients utilizing shotgun proteomics guided by histopathological characterization and genomic data

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Clinical protein science in translational medicine targeting malignant melanoma

Gil, J., Betancourt, L. H., Pla, I., Sanchez, A., Appelqvist, R., Miliotis, T., Kuras, M., Oskolas, H., Kim, Y., Horvath, Z., Eriksson, J., Berge, E., Burestedt, E., Jönsson, G., Baldetorp, B., Ingvar, C., Olsson, H., Lundgren, L., Horvatovich, P. & Murillo, J. R. & 18 others, Sugihara, Y., Welinder, C., Wieslander, E., Lee, B., Lindberg, H., Pawłowski, K., Kwon, H. J., Doma, V., Timar, J., Karpati, S., Szasz, A. M., Németh, I. B., Nishimura, T., Corthals, G., Rezeli, M., Knudsen, B., Malm, J. & Marko-Varga, G., 2019, In: *Cell Biology and Toxicology*. 35, 4, p. 293-332

Progressive changes in human follicular fluid composition over the course of ovulation: quantitative proteomic analyses

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Mendonça, C. F., Kuras, M., Nogueira, F. C. S., Plá, I., Hortobágyi, T., Csiba, L., Palkovits, M., Renner, É., Döme, P., Marko-Varga, G., Domont, G. B. & Rezeli, M., 2019, In: *Neurobiology of Disease*. 130, 104509.

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The hidden story of heterogeneous B-raf V600E mutation quantitative protein expression in metastatic melanoma—association with clinical outcome and tumor phenotypes

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