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RESEARCH AREA

Our research focuses on translational medicine in the field of thrombosis and hemostasis. Thrombi are complex structures that cannot be investigated in simplified systems, as red blood cells, leukocytes, platelets and molecules originating from these cells profoundly determine thrombus formation and thrombolysis. In our studies we use in vitro, ex vivo and in vivo methods combined with advanced microscopic technics to uncover the pathophysiology of hemostatic processes. We concentrate on the role of neutrophil extracellular traps (NETs) and their interactions with hemostatic components. Furthermore, we aim to shed light on the pathomechanism of bleeding or thrombotic complications in hematological diseases. Our results may thoroughly affect the development of new thrombolytic therapies and help to identify new thrombotic markers.

TECHNIQUES AVAILABLE IN THE LAB

- Animal experiments, thrombosis models, and related surgical techniques
- Genotyping of animals, PCR, gel electrophoresis
- Use of ELISA, Western blot, spectrophotometer, fluorometer, immunohistochemistry, preparation of scanning electron microscopy samples, and conducting examinations
- Enzyme kinetic analyses
- Confocal microscopy
- General coagulation tests, thromboelastography, aggregometry, turbidimetry
- Surface plasmon resonance (SPR) studies
- Isolation of bone marrow/blood-derived cells and conducting experiments with these cells

SELECTED PUBLICATIONS

Simon, B., Ceglédi, A., Dolgos, J., Farkas, P., Gaddh, M., Hankó, L., Horváth, R., Kaposi, A., Magyar, L., Masszi, T., Szederjesi, A., **Wohner, N.**, Bodó, I. (2022) Combined immunosuppression for acquired hemophilia A: CyDRI is a highly effective low-toxicity regimen. **Blood** **140(18)**: 1983-1992. .

Wohner, N., Sebastian, S., Muczynski, V., Huskens, D., de Laat, B., de Groot, PG., Lenting, PJ. (2022) Osteoprotegerin modulates platelet adhesion to von Willebrand factor during release from endothelial cells. **J Thromb Haemost** **20(3)**: 755-766.

Lovas, S., Varga, G., Farkas, P., Masszi, T., **Wohner, N.**, Bereczki, Á., Adamkovich, N., Borbényi, Z., Szomor, Á., Alizadeh, H., Szaleczky, E., Wolf, K., Schneider, T., Plander, M., Szendrei, T., Csacsovszki, O., Csukly, Z., Rajnics, P., Egyed, M., Nagy, Z., Rejtő, L., Illés, Á., Mikala, G., Váróczy, L. (2019) Real-world data on the efficacy and safety of daratumumab treatment in Hungarian relapsed/refractory multiple myeloma patients. *Int J Hematol* **110(5)**: 559-565.

Varga, G., Mikala, G., Gopcsa, L., Csukly, Z., Kollai, S., Balázs, G., Botond, T., **Wohner, N.**, Horváth, L., Szombath, G., Farkas, P., Masszi T. (2018) Multiple Myeloma of the Central Nervous System: 13 Cases and Review of the Literature. **J Oncol** **2018**: 3970169.

Wohner, N., Muczynski, V., Mohamadi, A., Legendre, P., Proulle, V., Aymé, G., Christophe, OD., Lenting, PJ., Denis, CV., Casari, C. (2018) Macrophage scavenger receptor SR-AI contributes to the clearance of von Willebrand factor. **Haematologica** **103(4)**: 728-737.