



**BIOMEDICAL
CENTER**

JOURNAL CLUB

Laboratory of Reproductive Medicine: Where is current reproductive medicine going?

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Gametogenesis, i.e. spermatogenesis and oogenesis, as well as early embryonic development, stay at beginning of life. Although this phenomenon is intensively studied through the decades, mechanisms regulating these key processes remains still unclear. A couple years ago, role of ions, second messengers and crucial kinases have been described. However, what is behind these general factors? Recently, the role of some surprising substances has been revealed: nitric oxide and hydrogen sulfide, known dangerous neurotoxins, show physiological action of extremely low doses during cell cycle. Therefore, these molecules has been entitled ‚gasotransmitters‘ – gaseous molecules with signal transduction ability. Target systems of gasotransmitters are poorly understood, however, epigenetics seems to be one of them. On the other hand, gasotransmitter releasing seems to be epigenetically regulated as well. Cross-talk of gasotransmitters and epigenetic factors in gametogenesis and embryonic development has become the hot topic of Laboratory of Reproductive Medicine.

About JC: The goals of Journal Club are manifold. Primarily, it serves as a forum where every member of our Biomedical Center can present the latest results from his field and specialization in a way that is accessible to her/his colleagues. The first language of JC's is English. Additionally, it serves as a place to present results from own research and to train presentations. We would like to stimulate discussion across multiple scientific fields in order to reach wider and deeper insight of contemporary development of science. Researchers from outside of the center are welcomed to participate and/or to present their own topics. Please, do not hesitate to come or to contact us. Organizers: J. Kroc, L. Vistejnova and P. Klein.

Journal Club on G+: <https://plus.google.com/u/0/communities/104180668850948576055>

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