**Medicine, Life, and Transformations of Matter 1500-1800**

*Date:* June 16-17, 2022*.*

*Place:* Freie Universität, Berlin-Dahlem

*Organizers*: Carmen Schmechel (FU), Antonio Clericuzio (Roma Tre)

*Sponsored by*: Deutsche Forschungsgemeinschaft; Freie Universität Berlin;

SFB 980 „Episteme in Motion”.

*Abstract*

Medical theory and practice has always straddled the boundary between the phenomenon of life and its material support, the physical body. Within this framework, transformations of matter played a central role. If disease was understood as a morbid transformation of the body, curative attempts would often aim at healing by means of altering bodily matter back into its default equilibrium state. Hence the medical cure of the sick body was seen as a transformation of matter. In Galenic humoral theory, the medical procedures referred to how to establish proper *krasis* - a temperate equilibrium of humours - to ensure optimal functioning and healing. In medieval times, analogies made their way from alchemical practice into medicine. The healing of the human body was analogized with the “healing” of metals (Moureau 2013), meaning their amelioration and transmutation towards gold. Medical applications of alchemy became increasingly common in late medieval thought (Crisciani and Pereira, 1996). The medical significance of transformations of matter is also apparent in the theory of *prolongatio vitae*, which Roger Bacon links with the production of a *corpus equale* (Newman 1995, Moureau 2013). In the Early modern age, the vital spirit, considered as the agent of life, the inheritor of *pneuma*, gets reconceptualized as a volatile salt in iatrochemistry and Paracelsian medicine (Clericuzio 1988, 1994, 2003). Alchemists such as Robert Fludd aimed to distill or otherwise extract the vital spirit from bodily matter, esp. blood. Paracelsus and van Helmont put special emphasis on the power of imagination (Giglioni 2000, Hedesan 2016), and resorted to the formative power of seeds to account for diseases, generation and other material transformations (Hirai 2005, 2017). The marriage of chymistry, with its laboratory practices, and medicine – the application of chymical procedures to the human body – resulted in a new philosophy of physiology, which paved the way for modern pharmacology and medicine.

 Today, the literature on life and vegetative powers is increasing (Clericuzio 1988, 2003; Manning 2012; Distelzweig, Goldberg and Ragland 2016; Blank and Baldassarri 2021; Demarest, Regier, and Wolfe 2021). However, less focus has been bestowed on the particular *operations* that enabled these transformations of matter with a view to curing disease and thus maintaining life. While guided by specific philosophical theories and principles which provided the framework, such transformations - distillations, infusions, decoctions, fermentations, putrefactions, calcinations - were often enacted in a practical manner.

 The aim of our conference is to explore such transformations in their medical dimension, linking the transformations to (the preservation of) life.

 Possible realms of inquiry and/or issues to tackle might be (but are not restricted to):

* *Alchemia medica* and its Early modern reverberations;
* Early modern conceptualizations of spirit, pneuma, vegetative/nutritive souls and the attempted transformations they were subjected to;
* The tradition of Stoic *logoi,* of formative seeds, and how they relate to medicine and life;
* Medical and therapeutic strategies in late medieval and Early modern times, involving transformations of matter;
* Aristotelian debates on matter and form in the context of medicine and the bodies of living beings;
* Medieval debates on soul and spirit insofar as they relate to medicine and allude to a material basis (such as Galenism-inspired theories of medical spirits);
* Chymical ‘seeds’, encoding formative power, as agents of biological change;
* Theories of contagion and disease insofar as they involve transformations of bodily matter (peccant matter in humoral theory, etc.)
* Analogies of transmutation within the human body (the workings of the ‘internal laboratory”);
* Aspects of *prolongatio vitae* theories which make use of transformations of matter.

Thank you for sending an abstract of max. 250 words to transformations.of.matter [at] gmail.com, by March 15th, 2022. Notifications of acceptance will be sent by April 15th, 2022.

**References**

Baldassarri, Fabrizio, and Andreas Blank, eds. *Vegetative Powers: The Roots of Life in Ancient, Medieval and Early Modern Natural Philosophy*. Cham: Springer International Publishing, 2021.

Bono, James J. “Medical Spirits and the Medieval Language of Life.” *Traditio* 40 (1984): 91–130.

Clericuzio, Antonio, ‘Mechanism and Chemical Medicine in Seventeenth-Century England: Boyle’s Investigation of Ferments and Fermentation’, in: P. Distelzweig et al. (eds.), *Early Modern Medicine and Natural Philosophy*, Dordrecht: Springer, 2016, pp. 271-293.

Clericuzio, Antonio, ‘The Internal Laboratory. The Chemical Reinterpretation of Medical Spirits in England (1650-1680)’, in: Piyo Rattansi, Antonio Clericuzio (eds.), *Alchemy and Chemistry in the 16th and 17th Centuries*, Dordrecht: Springer, 1994, pp. 51–83.

Clericuzio, Antonio. “Chemical and Mechanical Theories of Digestion in Early Modern Medicine.” *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 43, no. 2 (June 2012): 329–37.

Clericuzio, Antonio. “Chemistry of Life: Ferments and Fermentation (Ital. orig.: La chimica della vita: Fermenti e fermentazione nella iatrochimica del Seicento).” *Medicina Nei Secoli: Arte e Scienza* 15, no. 2 (2003): 227–45.

 Clericuzio, Antonio. “Spiritus Vitalis, Studio sulle teorie fisiologiche da Fernel a Boyle.” *Nouvelles de la  République des Lettres*, 1988, 33–84.

Crisciani, Chiara, and Michela Pereira, *L’Arte del Sole e della Luna: Alchimia e filosofia nel Medioevo*, Spoleto: Centro Italiano di Studi sull’Alto Medioevo, 1996.

Debus, Allen G. “Chemistry and the Quest for a Material Spirit of Life in the Seventeenth Century,” in Spiritus, ed. Marta Fattori and Massimo L. Bianchi (Rome: Ateneo, 1984), pp. 245–263.

Demarest, Boris, Jonathan Regier, and Charles Wolfe. *Animism and Its Discontents: Soul-Based Explanations in Early Modern Natural Philosophy and Medicine*. HOPOS Special Issue: Vol. 11, no. 2, 2021.

Distelzweig, Peter, Benjamin Goldberg, and Evan R. Ragland, eds. *Early Modern Medicine and Natural Philosophy*. Vol. 14. History, Philosophy and Theory of the Life Sciences. Dordrecht: Springer Netherlands, 2016.

Giglioni, Guido. *Immaginazione e malattia: Saggio su Jan Baptiste van Helmont*. Milano: FrancoAngeli, 2000.

Hedesan, Georgiana D. “Reproducing the Tree of Life: Radical Prolongation of Life and Biblical Interpretation in Seventeenth-Century Medical Alchemy.” *Ambix* 60, no. 4 (November 2013): 341–60.

Hedesan, Georgiana D. *An Alchemical Quest for Universal Knowledge: The ‘Christian Philosophy’ of Jan Baptist Van Helmont (1579-1644)*. London and New York: Routledge, 2016.

Hirai, Hiro. *Le concept de semence dans les théories de la matière à la renaissance: de Marsile Ficin à Pierre Gassendi*, Turnhout, Belgium: Brepols, 2005.

Hirai, Hiro. *Medical Humanism and Natural Philosophy: Renaissance Debates on Matter, Life, and the Soul*. Leiden ; Boston: Brill, 2011.

Hirai, Hiro. “Bodies and Their Internal Powers.” In *Routledge Companion to Sixteenth-Century Philosophy*, edited by Henrik Lagerlund and Benjamin Hill. New York and London: Routledge, 2017.

Manning, Gideon. *Matter and Form in Early Modern Science and Philosophy*. Leiden; Boston: Brill, 2012.

Moureau, Sébastien. “Elixir Atque Fermentum: New Investigations about the Link between Pseudo-Avicenna’s Alchemical ‘De Anima’ and Roger Bacon: Alchemical and Medical Doctrines.” *Traditio* 68 (2013): 277–325.

Newman, William R. “The Philosophers’ Egg: Theory and Practice in the Alchemy of Roger Bacon,” *Micrologus* 3 (1995): 75–101.

Pereira, Michela, “Teorie dell’elixir nell’alchimia latina medievale,” *Micrologus*, 3 (1995): 103–48.