

Biologic Response Modifiers

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The American National Institute of Health (NIH) and the National Cancer Institute (NCI) defines Biologic Response Modifiers (BRM) substances and therapeutic interventions, which alter the interaction between tumor and host (patient) through modulation of the biological reactions of the host (immunomodulation), resulting in a therapeutic effect.

Not only in cancer but also in practically all forms of illness, there is a very lively interaction between various regulatory mechanisms. Therefore, BRM are one of many indications for the oncological patient.

The use of cytoplasm is a therapeutic system in itself and contains various bioactive components from organ tissue or combinations of organ tissues. In cytoplasm (cell body without the nucleus), all proteins and peptides, which fulfil an important role in cell function, regulation, metabolism and energy production, are synthesized at the site of ribosomes.

In healthy cells, these functions are well balanced, both quantitatively and qualitatively. On abnormal cells, these proteins and peptides can have regulating and substituting effects. The functional phylogenetic similarity of foetal and young tissues make it possible to extract these proteins and peptides and to apply them for immunomodulation and improvement of biological cancer defense mechanisms.

The effects of therapeutic interventions with BRM (cytoplasm) are well documented, in vitro and in vivo, by many independent researchers.^{[i]-[ii][iii][iv][v][vi]}

Interestingly, in appropriate doses, no tolerance is formed (or very rarely) against these proteins and peptides. Therefore, allergic reactions are very rare.

In case of cancer, these proteins and peptides enhance the own immune defense mechanisms and exhibit a form of hygiogenesis both in normal cells as in cancerous cells.

Usually, among others, BRM contain cytoplasm extracts of foetal organ tissues, like placenta, umbilical cord, epiphysis, testes, hepar, pancreas, lien, ren, glandulae suprarenales, glandula thyreoidea, and others.

Therefore, in the Cologne Model, cancer patients and patients with symptoms of immunodeficiency, BRM will be applied as therapeutic interventions.

[i]Hall V, Wolcott M: Modulation of tumor cell growth by thymus extracts. Fed Proc (1981) 40: 3351

[ii]Medawar P, Hunt R: Vulnerability of methylcholanthrene induced tumors to immunity aroused by synergetic foetal cells. Nature (1978) 271: 164-165

[iii]Munder P, Stiefel Th, Widmann K, Theurer K: Antitumorale Wirkung xenogener Substanzen in vivo und in vitro. *Oncology* (1982) 5(2): 1-7

[iv]Letnansky K: Die spezifische Hemmwirkung von Ney-Tumorin und Fraktionen aus Plazenta auf Tumorzellen. *Therapiewoche* (1984) 34(26A): 54

[v]Theuer K: Wiederherstellung defekter Regulationen durch zytoplasmatische Therapie, insbesondere bei Krebs. *Aerztl Praxis* (1981) 42: 5