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The Precautionary Principle (PP) Requires Laboratory Research

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Regulatory action based on the Precautionary Principle is generally guided by the results of epidemiology studies. What is often overlooked is that laboratory research has supplied the basic information, and that it continues to provide essential new information. Past research has shown that EMF is effective in many biological systems, at many frequencies, and at low thresholds (of both field strength and duration). Research has also indicated EMF effects on electron transfer reactions and on protein synthesis. Recent research on the stress response has indicated that even weak ELF fields '...damage...macromolecules.' (Kültz, *Physiol Rev*, 2005). The fact that the stress response is induced by both ELF and RF fields has shown that safety standards based on temperature rise (SAR) are fundamentally flawed, and that new standards should consider (1) non-thermal responses and (2) include cumulative exposures across the EM spectrum.