Tumor Tissues Harboring Mutations in cAMP-specific Phosphodiesterases

Summary (1024-character limit)
The National Institute of Child Health and Human Development (NICHD), Division of Intramural Research, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize clinical samples with genetic mutations associated with endocrine tumors.

NIH Reference Number
E-059-2010

Product Type
- Research Tools

Keywords
- Research Tools
- Endocrine Tumors
- Clinical Samples
- Phosphodiesterase Inhibitors
- Biomarker

Collaboration Opportunity
This invention is available for licensing.

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Description of Technology

The National Institute of Child Health and Human Development (NICHD), Division of Intramural Research, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize clinical samples with genetic mutations associated with endocrine tumors.

Researchers at the National Institute of Child Health and Human Development (NICHD), NIH, have made available samples of patient-derived adrenal and heart tumors that harbor genetic mutations that have been implicated in the predisposition of endocrine tumors. An endocrine tumor is a growth that

affects the parts of the body that secrete hormones. Because an endocrine tumor arises from cells that produce hormones, the tumor itself can produce hormones and cause serious illness.

The tumor samples made available herein contain deletions in the cyclic nucleotide phosphodiesterase (PDE) PDE7A or PDE8B genes that impair PDE function and are characterized by high sensitivity to changes in cAMP levels. Commercially, phosphodiesterase inhibitors are widely used in the treatment of various disorders, including asthma, pulmonary hypertension, and erectile dysfunction, suggesting a potential utility for these tissues in a wide range of investigations.

Patent Status:
Research Tool. Patent protection is not being pursued for this technology.

Potential Commercial Applications

- Useful in the investigation of the mechanisms of phosphodiesterase inhibition.

Competitive Advantages

- phosphodiesterase inhibitors are widely used in the treatment of various disorders, including asthma, pulmonary hypertension, and erectile dysfunction,

Inventor(s)

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Development Stage

- Basic (Target Identification)

Patent Status

- **Research Material:** NIH will not pursue patent prosecution for this technology

Therapeutic Area

- Cancer/Neoplasm