Compound used to study birth defects shows promise as anti-cancer therapy.

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During development, the intestinal tract needs to grow asymmetrically. If it cannot, an infant is born with an intestinal birth defect. While studying this phenomenon, researchers at North Carolina State University discovered the compound heterotaxin, which not only causes intestinal birth defects; it may also inhibit cancer development. The birth defect inducing (teratogenic) nature of heteroaxin is a result of its negative effects on development. The compound also increases cell adhesion (and therefore cell migration) and inhibits normal blood vessel formation, melanogenesis, and epithelial-mesenchymal transition, all of which are key steps in cancer development.

Further research must be conducted on heterotaxin before it can be used as a drug. This finding is reminiscent of the discovery that thalidomide, the infamous drug that caused numerous birth defects in England, could be used to stop the process of angiogenesis and thus limit a tumor growth.

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