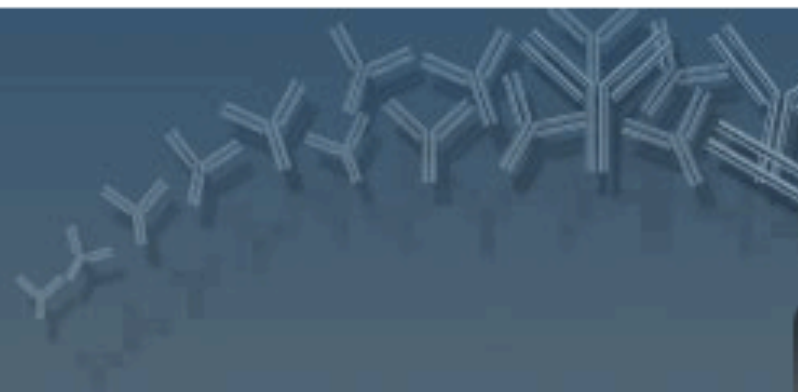




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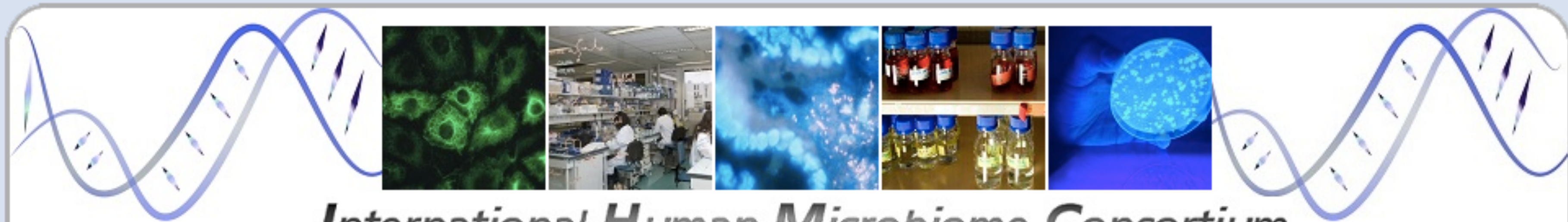
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Lymphotoxin regulates commensal responses to enable diet-induced obesity

Vaibhav Upadhyay, Valeriy Poroyko, Tae-jin Kim, Suzanne Devkota, Sherry Fu, Donald Liu, Alexei V Tumanov, Ekaterina P Koroleva, Liufu Deng, Cathryn Nagler, Eugene B Chang, Hong Tang & Yang-Xin Fu

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NATURE | LETTER



Diet rapidly and reproducibly alters the human gut microbiome

Lawrence A. David, Corinne F. Maurice, Rachel N. Carmody, David B. Gootenberg, Julie E. Button, Benjamin E. Wolfe, Alisha V. Ling, A. Sloan Devlin, Yug Varma, Michael A. Fischbach, Sudha B. Biddinger, Rachel J. Dutton & Peter J. Turnbaugh

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Metagenomic systems biology of the human gut microbiome reveals topological shifts associated with obesity and inflammatory bowel disease

Sharon Greenblum^a, Peter J. Turnbaugh^b, and Elhanan Borenstein^{a,c,d,1}

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NATURE IMMUNOLOGY |

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Alexei V Tumanov, Ekaterina
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Human Microbiome Consortium

Bacterial cells can help tumors

REPORT

Potential role of intratumor bacteria in mediating tumor resistance to the chemotherapeutic drug gemcitabine

Leore T. Geller^{1,*}, Michal Barzily-Rokni^{2,*}, Tal Danino^{3,†}, Oliver H. Jonas^{4,5}, Noam Shental⁶, Deborah Nejman¹, Nancy Gavert¹, Yaara Zwang¹, Zachary A. Cooper^{7,8,‡}, Kevin Shee², Christoph A. Thaiss⁹, Alexandre Reuben⁸, Jonathan Livny², Roi Avraham¹⁰, Dennie T. Frederick¹¹, Matteo Ligorio¹², Kelly Chatman¹³, Stephen E. Johnston², Carrie M. Mosher², Alexander Brandis¹⁴, Garold Fuks¹⁵, Candice Gurbatri¹⁶, Vancheswaran Gopalakrishnan⁸, Michael Kim⁸, Mark W. Hurd¹⁷, Matthew Katz⁸, Jason Fleming⁸, Anirban Maitra¹⁸, David A. Smith², Matt Skalak³, Jeffrey Bu³, Monia Michaud¹⁹, Sunia A. Trauger¹³, Iris Barshack^{20,21}, Talia Golan^{21,22}, Judith Sandbank²¹, Keith T. Flaherty¹², Anna Mandinova^{2,23}, Wendy S. Garrett^{2,19,24}, Sarah P. Thayer²⁵, Cristina R. Ferrone²⁶, Curtis Huttenhower^{2,27}, Sangeeta N. Bhatia^{2,28,29,30,31,32,33}, Dirk Gevers^{2,§}, Jennifer A. Wargo^{7,8}, Todd R. Golub^{34,35,36,¶}, Ravid Straussman^{1,¶,¶}

“Certain bacteria express enzymes capable of metabolizing the cancer chemotherapeutic drug *gemcitabine* into an inactive form...an effect that was reversed by antibiotic treatment in mice. A high percentage of human pancreatic ductal adenocarcinomas contain the culprit bacteria (gammaproteobacteria). ...Efficacy of an existing therapy for this lethal cancer might be improved by co-treatment with antibiotics.”