

as·pir·naut = one who aspires, seeks and achieves

Keywords: [Aspirnaut](#) [Education and Outreach](#)

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Founded in 2006 by two Vanderbilt faculty members, the program was launched as an online-learning-on-the-bus initiative in rural, Arkansas in 2006. Since the first pilot on rural school bus routes where students completed online curriculum, Aspirnaut™ has evolved to a K-20 STEM pipeline program for diversity that partners the experiential and content expertise of Vanderbilt University Medical Center with rural K-12 schools and diverse high school, undergraduate and graduate students.

<http://www.aspirnaut.org/>

## Publications / Citations

1. [Collagen IV and basement membrane at the evolutionary dawn of metazoan tissues](#). Fidler AL, Darris CE, Chetyrkin SV, Pedchenko VK, Boudko SP, Brown KL, Gray Jerome W, Hudson JK, Rokas A, Hudson BG (2017) *Elife*  
› Primary publication · [28418331](#) (PubMed) · [PMC5395295](#) (PubMed Central) · Added on 4/19/2017
2. [The susceptible HLA class II alleles and their presenting epitope\(s\) in Goodpasture's disease](#). Xie LJ, Cui Z, Chen FJ, Pei ZY, Hu SY, Gu QH, Jia XY, Zhu L, Zhou XJ, Zhang H, Liao YH, Lai LH, Hudson BG, Zhao MH (2017) *Immunology* **151(4)**: 395-404  
› Primary publication · [28342268](#) (PubMed) · [PMC5506429](#) (PubMed Central) · Added on 5/12/2017
3. [Basement membrane ultrastructure and component localization data from uterine tissues during early mouse pregnancy](#). Jones-Paris CR, Paria S, Berg T, Saus J, Bhave G, Paria BC, Hudson BG (2016) *Data Brief* : 931-939  
› Primary publication · [27896299](#) (PubMed) · [PMC5118616](#) (PubMed Central) · Added on 3/26/2017
4. [Embryo implantation triggers dynamic spatiotemporal expression of the basement membrane toolkit during uterine reprogramming](#). Jones-Paris CR, Paria S, Berg T, Saus J, Bhave G, Paria BC, Hudson BG (2017) *Matrix Biol* : 347-365  
› Primary publication · [27619726](#) (PubMed) · [PMC5328942](#) (PubMed Central) · Added on 10/30/2016
5. [Extracellular chloride signals collagen IV network assembly during basement membrane formation](#). Cummings CF, Pedchenko V, Brown KL, Colon S, Rafi M, Jones-Paris C, Pokyadeshava E, Liu M, Pastor-Pareja JC, Stothers C, Ero-Tolliver IA, McCall AS, Vanacore R, Bhave G, Santoro S, Blackwell TS, Zent R, Pozzi A, Hudson BG (2016) *J Cell Biol* **213(4)**: 479-94  
› Primary publication · [27216258](#) (PubMed) · [PMC4878091](#) (PubMed Central) · Added on 6/14/2016
6. [A unique covalent bond in basement membrane is a primordial innovation for tissue evolution](#). Fidler AL, Vanacore RM, Chetyrkin SV, Pedchenko VK, Bhave G, Yin VP, Stothers CL, Rose KL, McDonald WH, Clark TA, Borza DB, Steele RE, Ivy MT, Aspirnauts, Hudson JK, Hudson BG (2014) *Proc Natl Acad Sci U S A* **111(1)**: 331-6  
› Primary publication · [24344311](#) (PubMed) · [PMC3890831](#) (PubMed Central) · Added on 2/25/2014

## MeSH Terms

[Alleles](#) [Amino Acid Sequence](#) [Animals](#) [Anti-Glomerular Basement Membrane Disease](#) [Autoantigens](#) [Basement Membrane](#)  
[Biological Evolution](#) [Cattle](#) [Cell Line, Tumor](#) [China](#) [Chlorides](#) [Collagen Type IV](#) [Computer Simulation](#) [Cross-Linking Reagents](#)  
[Ctenophora](#) [Drosophila melanogaster](#) [Embryo Implantation](#) [Epitope Mapping](#) [Epitopes, T-Lymphocyte](#) [Evolution, Molecular](#)

Extracellular Matrix Extracellular Matrix Proteins Female Fluorescent Antibody Technique Gene Expression Regulation  
Genetic Predisposition to Disease Genotype Heme HLA-DRB1 Chains Humans Imines Injections Laminin Mass Spectrometry Mice  
Molecular Sequence Data Peptide Fragments Peptides Peroxidase Peroxidases Phylogeny Polymorphism, Genetic Pregnancy  
Protein-Serine-Threonine Kinases Protein Binding Protein Conformation Protein Structure, Tertiary Protein Subunits  
Receptors, Antigen, T-Cell Risk RNA, Messenger Sequence Analysis, RNA Sequence Homology, Amino Acid Sesame Oil  
Sulfur Compounds T-Lymphocytes Uterus Zebrafish