

# Jeffrey D. Hasday, MD

## ledicine

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## **Education and Training**

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MD University of Rochester, NY 1979

Internship University of Rochester, NY Medical 1980-1981

Residency University of Rochester, NY – Medical 1981-1983

Fellow & Instructor University of Rochester, Rochester, NY; Department of Pharmacology and Toxicology 1979-1980

Clinical Fellow University of Michigan Medical Center, Ann Arbor, MI, Pulmonary & Critical Care; 1983-1984

Research Fellow University of Michigan Medical Center, Ann Arbor, MI, Pulmonary & Critical Care; 1983-1984

#### **Biosketch**

Dr. Hasday is Board-certified in Internal Medicine, Pulmonary Medicine and Critical Care Medicine and is Head of the Pulmonary and Critical Care Medicine Division. He over 30 years experience as a pulmonary and critical care physician with clinical expertise in with acute lung injury/ARDS, sepsis/septic shock, interstitial lung disease, and asthma. His basic and translational research focuses on thermobiology, the effects of clinically relevant hypothermia and hyperthermia (including fever) on biological processes that contribute to homeostasis and disease pathogenesis. Specific research interests include p38 MAP kinase signaling and development of substrate-selective p38 inhibitors, TRPV4, endothelial barrier function, regulation of cytokine expression, acute lung injury, regulation of heat shock protein gene expression, therapeutic hypothermia in ARDS, and thermoregulation. Dr. Hasday also directs the University of Maryland Cytokine Core Laboratory

## **Research/Clinical Keywords**

ARDS, ILD, IPF, interstitial lung disease, asthma, heat shock protein, p38 MAP kinase, endothelial, epithelial, cytokine, thermoregulation

### **Highlighted Publications**

Singh IS, Viscardi RM, Kalvakolanu I, Calderwood S, Hasday JD. Inhibition of tumor necrosis factor-alpha transcription in macrophages exposed to febrile range temperature. A possible role for heat shock factor-1 as a negative transcriptional regulator. J Biol Chem. 2000 Mar 31;275(13):9841-8. PubMed PMID: 10734139.

Singh IS, He JR, Calderwood S, Hasday JD. A high affinity HSF-1 binding site in the 5'-untranslated region of the murine tumor necrosis factor-alpha gene is a transcriptional repressor. J Biol Chem. 2002 Feb 15;277(7):4981-8. PubMed PMID: <u>11734555</u>.

Cooper ZA, Ghosh A, Gupta A, Maity T, Benjamin IJ, Vogel SN, Hasday JD, Singh IS. Febrile-range temperature modifies cytokine gene expression in LPS-stimulated macrophages by differentially modifying NF-{kappa}B recruitment to cytokine gene promoters. Am J Physiol Cell Physiol. 2010 Jan;298(1):C171-81. PubMed PMID: 19846753; PubMed Central PMCID: PMC2806152.

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Rice P, Martin E, He JR, Frank M, DeTolla L, Hester L, O'Neill T, Manka C, Benjamin I, Nagarsekar A, Singh I, Hasday JD. Febrile-range hyperthermia augments neutrophil accumulation and enhances lung injury in experimental gram-negative bacterial pneumonia. J Immunol. 2005 Mar 15;174(6):3676-85. PubMed PMID: 15749906.

Nagarsekar A, Greenberg RS, Shah NG, Singh IS, Hasday JD. Febrile-range hyperthermia accelerates caspase-dependent apoptosis in human neutrophils. J Immunol. 2008 Aug 15;181(4):2636-43. PubMed PMID: <u>18684954</u>; PubMed Central PMCID: <u>PMC2829976</u>.

Shah NG, Tulapurkar ME, Damarla M, Singh IS, Goldblum SE, Shapiro P, Hasday JD. Febrile-range hyperthermia augments reversible TNF-α-induced hyperpermeability in human microvascular lung endothelial cells. Int J Hyperthermia. 2012;28(7):627-35. PubMed PMID: 22834633.

Tulapurkar ME, Almutairy EA, Shah NG, He JR, Puche AC, Shapiro P, Singh IS, Hasday JD. Febrile-range hyperthermia modifies endothelial and neutrophilic functions to promote extravasation. Am J Respir Cell Mol Biol. 2012 Jun;46(6):807-14. PubMed PMID: <u>22281986</u>; PubMed Central PMCID: <u>PMC3380289</u>.

Gupta A, Cooper ZA, Tulapurkar ME, Potla R, Maity T, Hasday JD, Singh IS. Toll-like receptor agonists and febrile range hyperthermia synergize to induce heat shock protein 70 expression and extracellular release. J Biol Chem. 2013 Jan 25;288(4):2756-66. PubMed PMID: <u>23212905</u>; PubMed Central PMCID: <u>PMC3554941</u>.

Tulapurkar ME, Ramarathnam A, Hasday JD, Singh IS. Bacterial lipopolysaccharide augments febrile-range hyperthermia-induced heat shock protein 70 expression and extracellular release in human THP1 cells. PLoS One. 2015;10(2):e0118010. PubMed PMID: <u>25659128</u>; PubMed Central PMCID: <u>PMC4320107</u>.

Shah NG, Cowan MJ, Pickering E, Sareh H, Afshar M, Fox D, Marron J, Davis J, Herold K, Shanholtz CB, Hasday JD. Nonpharmacologic approach to minimizing shivering during surface cooling: a proof of principle study. J Crit Care. 2012 Dec;27(6):746.e1-8. PubMed PMID: 22762936; PubMed Central PMCID: PMC3494806.

Greenberg RS, Chen H, Hasday JD. Acetaminophen has limited antipyretic activity in critically ill patients. J Crit Care. 2010 Jun;25(2):363.e1-7. PubMed PMID: <u>19781895</u>; PubMed Central PMCID: <u>PMC2883688</u>.

Potla R, Singh IS, Atamas SP, Hasday JD. Shifts in temperature within the physiologic range modify strand-specific expression of select human microRNAs. RNA. 2015 Jul;21(7):1261-73. PubMed PMID: <u>26018549</u>; PubMed Central PMCID: <u>PMC4478345</u>.

Sonna LA, Kuhlmeier MM, Carter HC, Hasday JD, Lilly CM, Fairchild KD. Effect of moderate hypothermia on gene expression by THP-1 cells: a DNA microarray study. Physiol Genomics. 2006 Jun 16;26(1):91-8. PubMed PMID: <u>16595739</u>.

Fairchild KD, Singh IS, Carter HC, Hester L, Hasday JD. Hypothermia enhances phosphorylation of I{kappa}B kinase and prolongs nuclear localization of NF-{kappa}B in lipopolysaccharide-activated macrophages. Am J Physiol Cell Physiol. 2005 Nov;289(5):C1114-21. PubMed PMID: 15972840.

Fairchild KD, Singh IS, Patel S, Drysdale BE, Viscardi RM, Hester L, Lazusky HM, Hasday JD. Hypothermia prolongs activation of NF-kappaB and augments generation of inflammatory cytokines. Am J Physiol Cell Physiol. 2004 Aug;287(2):C422-31. PubMed PMID: <u>15070815</u>.

Afshar M, Richards S, Mann D, Cross A, Smith GB, Netzer G, Kovacs E, **Hasday J**. Acute immunomodulatory effects of binge alcohol ingestion. Alcohol. 2015 49(1):57-64(PMID: 25572859

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