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Remembering Lloyd Mayer

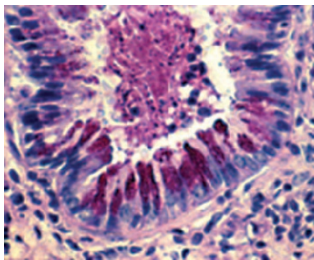
Chuck Elson, Eugene Chang, and Sergio Lira offer touching remembrances about a good friend and colleague, Lloyd Mayer, who was a kind and generous leader in the mucosal immunology community for many years. [See page 205](#)

Update on fecal transplants

Eric Pamer presents a concise update of the current promise and concerns regarding the manipulation of intestinal microbiota through the adoptive transfer of fecal microbiota. [See page 209](#)

DAMPs in COPD

Simon Pouwels and colleagues provide an insightful discussion of the role of damage-associated molecular patterns (DAMPs)—molecules induced by chronic exposure to noxious stimuli—in driving neutrophilic inflammation in the lung in patients with chronic obstructive pulmonary disease (COPD). [See page 214](#)



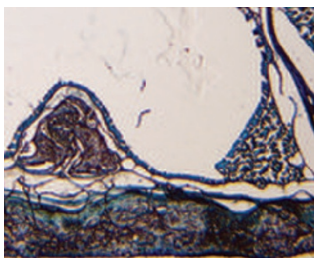
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Microbiota and viral infections

Marloes Vissers and co-workers discuss evidence of intriguing relationships between bacterial colonization of various mucosal tissues and the risk of developing severe respiratory viral infections. [See page 226](#)

Lung-resident CD4 T cells in recall immunity

Sumaiyya Thawer and colleagues present findings supporting the ability of lung-resident CD4 T cells to provide recall immunity to challenge with *Nippostrongylus brasiliensis* infection in mice. [See page 238](#)



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Pneumococcal IgA1 protease

Edward Janoff and colleagues demonstrate the ability of pneumococcal IgA1 protease to cleave human IgA1 and subvert its protective function *in vivo*. [See page 248](#)

Intestinal epithelial cells and allergic lung inflammation

Astrid Bonnégarde-Bernard and fellow investigators demonstrate a role for inhibitor- κ B kinase β signaling

in intestinal epithelial cells in the regulation of intestinal microbiota and immune responses to ingested antigens that influence allergic lung inflammation.

[See page 256](#)

Cervical protection against HIV

Xiao-Dan Yao and colleagues demonstrate a unique antiviral, but noninflammatory, microenvironment in the cervical tissues in HIV-seronegative commercial sex workers in Kenya. [See page 267](#)

Sublingual DCs

Catherine Hervouet and co-workers describe the ability of dendritic cells (DCs) from the sublingual mucosa to capture antigen and migrate to distant sites to prime CD8⁺ T-cell responses following sublingual immunization. [See page 279](#)

CLM-1 inhibits eotaxin

Itay Moshkovits and colleagues found that CMRF35-like molecule-1 (CLM-1), an immunoreceptor tyrosine-based inhibitory motif-bearing receptor, inhibited eotaxin-induced chemotaxis of eosinophils in a model of allergic airway inflammation. [See page 291](#)

NALT DCs take up flagellin-modified CS protein vaccine

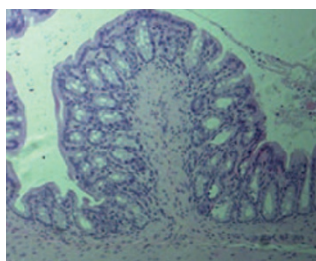
Adéla Nacer and fellow investigators demonstrate successful intranasal vaccination of mice with a flagellin-modified circumsporozoite (CS) protein immunogen and elegantly localize specific uptake by nasal-associated lymphoid tissue dendritic cells (NALT DCs). [See page 303](#)

Apical-to-basal transport of SIgA1-bound antigens

Juliette Abed and colleagues investigated apical-to-basal transport of secretory immunoglobulin A1 (SIgA1)-bound luminal ovalbumin across intestinal epithelial cells via binding to ectopically expressed CD71, which occurs in human celiac. [See page 314](#)

CD4⁺NKG2D⁺ T cells in Crohn's disease

Matthieu Camus and co-workers demonstrate an oligoclonal expansion of CD4⁺NKG2D⁺ T cells in



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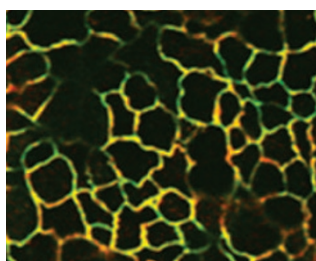
inflamed and uninfamed colon tissue from patients with Crohn's disease. [See page 324](#)

Acetylcholine regulation of colitis

Hong Ji and colleagues present data supporting a major role for the cholinergic anti-inflammatory pathway in modulating colitis in mice through the release of acetylcholine from efferent vagus nerve fibers in the spleen. [See page 334](#)

PSG-1 ameliorates colitis

Sandra Blois and fellow investigators show that pregnancy-specific β -glycoprotein 1 (PSG1) released from the placenta activates transforming growth factor- β and can ameliorate dextran sodium sulfate-induced colitis in mice. [See page 347](#)



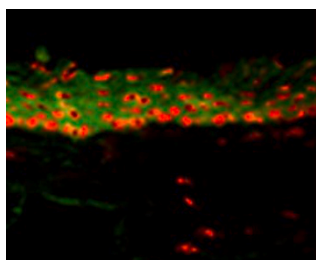
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Lymph node stromal cells and Tregs

Sascha Cording and colleagues identified an independent role for lymph-node resident stromal cells in the *de novo* induction of Foxp3⁺ regulatory T cells (Tregs) in the mesenteric and celiac lymph nodes. [See page 358](#)

Induction of claudin-14 by EcN

Nina Hering and colleagues show that the TcpC protein from *Escherichia coli* Nissle 1917 (EcN) induces tight-junction formation by inducing the production of claudin-14, which may explain its ability to enhance remission in patients with ulcerative colitis. [See page 368](#)



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Der p 1 peptide treatment of established airway inflammation

Daniel Moldaver and co-workers observed therapeutic amelioration of established ovalbumin-induced allergic airway disease following house dust mite peptide therapy. [See page 378](#)

Nod2-deficient mice have enhanced Treg function

Antonello Amendola *et al.* demonstrate that the lack of spontaneous colitis in *Nod2*-deficient mice correlates with an enhanced latency-associated peptide-positive regulatory T-cell response in the intestinal lamina propria that can in turn prevent trinitrobenzene sulfonic acid-induced colitis upon adoptive transfer. [See page 390](#)

Lyn enhances barrier function

Jennifer Bishop and colleagues found that the Lyn tyrosine kinase, which regulates pattern recognition receptor function, protects against dextran sodium sulfate-induced colitis by enhancing intestinal barrier function, at least in part through the generation of interleukin-22-producing innate lymphoid cells. [See page 404](#)

CD8⁺ regulatory T cells and Sjögren syndrome

Xiaobo Zhang *et al.* identified a role for CD8⁺ regulatory T cells in controlling T helper type 17-mediated inflammation in a murine model of Sjögren syndrome. [See page 416](#)

Foxp3⁻LAP⁺ highly suppressive T cells in colorectal cancer

Martin Scurr and coauthors demonstrate that a population of highly prevalent Foxp3⁻ regulatory T cells that express transforming growth factor- β latency-associated peptide (LAP) are highly immunosuppressive. [See page 427](#)

Thrombospondin-1 helps resolve lung injury

Using a mouse model of experimental lung injury, Yani Zhao and colleagues found that thrombospondin-1 induced interleukin-10 production by pulmonary macrophages to promote tissue repair. [See page 439](#)