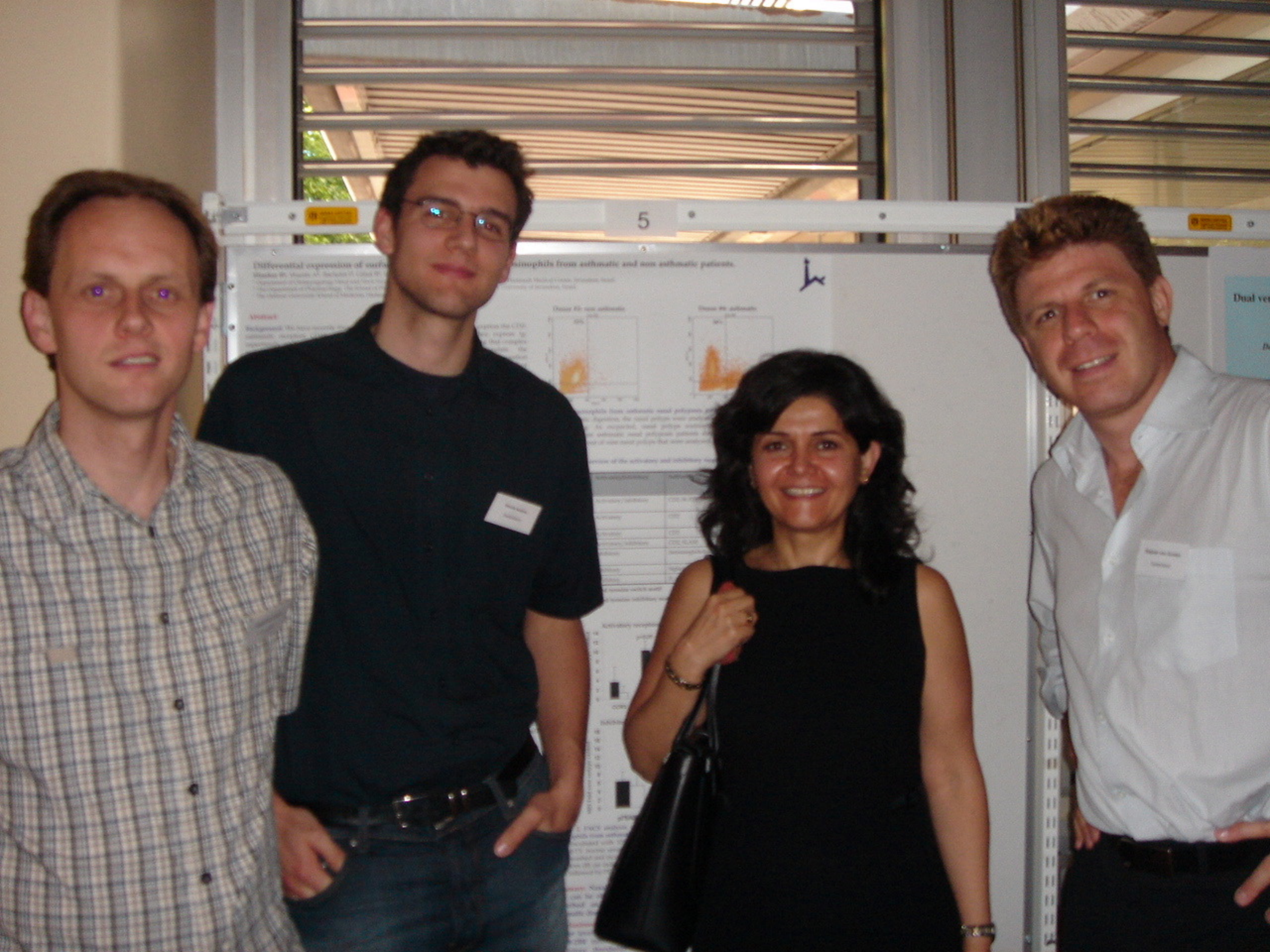

5

Für Diebstähle wird jede Haftung abgelehnt.
Nous ne couvrons pas les vols éventuels.
Non si risponde per eventuali furti.

Differential regulation of granulopoiesis by the basic Helix Loop Helix transcriptional inhibitors Id1 and Id2

M.Buitenhuis [1], H.W.M. van Deutekom [1], L.P. Verhagen [1], A. Castor [3], S.E.W. Jacobsen [3], J.W.J. Lammers [2], L. Koenderman [2] and P.J. Coffer [1]

[1]Molecular Immunology Lab, Department of Immunology, University Medical Center, Utrecht, The Netherlands. [2]Department of Pulmonary Diseases, University Medical Center, Utrecht, The Netherlands. [3]Hematopoietic Stem Cell Laboratory, Lund Strategic Research Center for Stem Cell Biology and Cell Therapy, Lund, Sweden.

Introduction

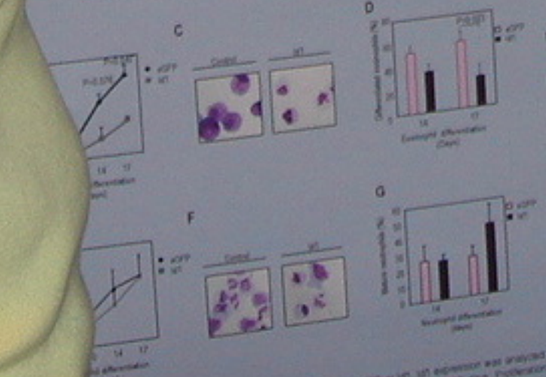
...eins function as inhibitors of members of the basic Helix-Loop-Helix family of ...on factors and have been demonstrated to play an important role in regulating ...esis. However, the role of these proteins in regulation of myelopoiesis is currently ...ear. In this study, we have investigated the role of Id1 and Id2 in the regulation of ...ulopoiesis. Id1 expression was initially upregulated during early granulopoiesis, which was ...followed by a decrease in expression during final maturation. In contrast, Id2 expression ...upregulated in terminally differentiated granulocytes. In order to determine whether Id ...ression plays a critical role in regulating granulopoiesis, Id1 and Id2 were ectopically ...essed in CD34+ cells by retroviral transduction. Our experiments demonstrate that ...onstitutive expression of Id1 inhibits eosinophil development, whereas in contrast neutrophil differentiation was modestly enhanced. Constitutive Id2 expression accelerates final maturation of both eosinophils and neutrophils, whereas inhibition of Id2 expression blocks differentiation of both lineages. Transplantation of β2-microglobulin-/-NOD/SCID mice with CD34+ cells ...topically expressing Id1 resulted in enhanced neutrophil development, whereas ectopic ...ession of Id2 induced both eosinophil and neutrophil development. These data ...trate that both Id1 and Id2 play a critical, although differential role in granulopoiesis.

Results

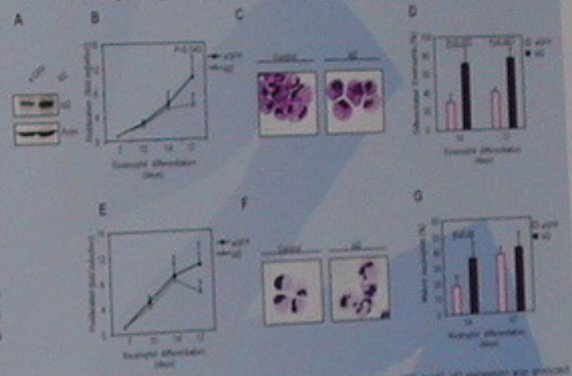
...xpression is differentially regulated during granulopoiesis



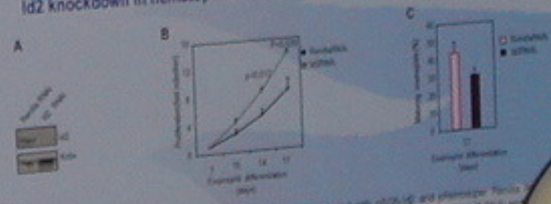
...topic expression of Id1 inhibits eosinophil differentiation, but enhances neutrophil differentiation



Ectopic expression of Id2 accelerates maturation of granulocytes



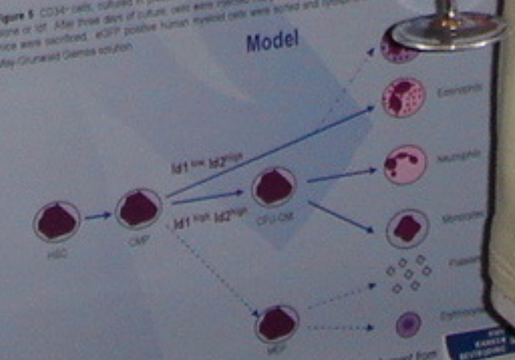
Id2 knockdown in hematopoietic progenitors inhibits eosinophil differentiation.



Neutrophil and monocyte development is induced b... mice, whereas eosinophil differentiation is onl...



Model



...supported by a research grant from














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S.PELLEGR








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Program Theme 3

Eosinophils in the hypereosinophilic syndrome and gastrointestinal disease

34

Characteristics of Pediatric Patients with Eosinophilic Esophagitis: An eight-year follow up of 89 patients

Amal Assa'ad, MD, Philip Putnam, MD, Margaret Collins, MD, Rachel Akers, Sean Jameson, Cassie Kirby, Michael Kovacik, MD, Richard Noel, MD, PhD, Jesus Gupatela, MD, MHPE, Marc Rothenberg, MD, PhD
Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio, USA

Abstract

Introduction

Methods

Results

Conclusion


Anmeldung
Reception
REGISTRATION




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