

*Summer School 2014*  
*Stein am Rhein*







27/07/2014





27/07/2014





27/07/2014





27/07/2014





27/07/2014





27/07/2014







# neutrophils, eosinophils and peripheral blood cells (PBMCs) in bullous pemphigoid (BP)

PKI

Luca Borradori<sup>1</sup>, Shida Yousefi<sup>1</sup>, Hans-Uwe Simon<sup>1</sup> and Dagmar Simon<sup>2</sup>  
<sup>1</sup>Department of Dermatology, University Medical Centre Freiburg, <sup>2</sup>Department of Dermatology, Inselspital, Bern University Hospital Bern.

ing disease  
 auto-antibodies to  
 type XVII  
 blister formation  
 y infiltrate  
 completely

er which conditions  
 e dermal-epidermal

DES

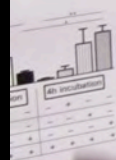
**Methods:** In an ex vivo skin model (Sitaru et al, 2002), cryosections are incubated with purified granulocytes and/or PBMCs with or without (wo) prior stimulation. In the presence/absence of BP antibodies (BPs), DES is assessed by light microscopy.

**Conclusion:** These preliminary results show that neutrophils are able to induce DES either in the presence of BP antibodies upon activation by cytokines and complement factors. Eosinophils are not able to induce DES solely in the presence of BP antibodies. PBMCs, and more specific monocytes, are able to induce DES upon BPs. Synergistic induction of DES by monocytes and neutrophils is observed. These observations suggest an active role of these immune cells in skin blister formation. Further investigations are needed to elucidate the mechanisms.

## IV. PBMCs, mainly monocytes, induce DES upon BPs

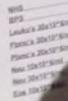


either BPS or GM-  
 DES

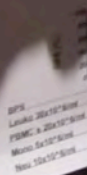


with BPS do not

## V. Synergistic induction of DES by PBMCs and neutrophils



## VI. Synergistic induction of DES by PBMCs and neutrophils can be inhibited upon anti-BP treatment

















urine neutrophils downstr  
d in response to danger s

W. Wei-Lynn Wong<sup>1</sup>, Mads-Gyrd Hansen<sup>4</sup>, Daniel Bac

DE  
rland  
Kingdom

at the intersection of inflammation and cell death in  
gase-3, -7 and, to lesser extents, caspase-9. XIAI  
ic phenotype mediated by the receptor interac  
se immune signaling such as inhibition of the  
intracellular  
d TNF- $\alpha$  on primary mature neutrophils  
nd viability of WT and XIAI  
ne immortalized







WC rollstuhlgangig

# Adhesion molecules in necrotic cell death

Xiaoliang Wang<sup>1</sup>, Zhaoyue He<sup>1</sup>, Shida Yousefi<sup>1</sup>, Hans-Uwe Simon<sup>1</sup>  
<sup>1</sup>Institute of Pharmacology, University of Bern, CH-3010 Bern, Switzerland

... reported a novel form of programmed necrotic cell death that occurs  
... death is characterized by cytosolic vacuolization and depends  
... by ligation of other adhesion molecules, such as  
... inflammatory activation of adhesion  
... provide new potential









Spitaltrotte

Jack  
Wolfskin























































