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CLONALLY EXPANDED, STEM CELL-LIKE MELANOMA-ANTIGEN SPECIFIC CD8 MEMORY CELLS CAN BE DETECTED IN HEALTHY HUMANS

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We used four-color ImmunoSpot® assays, in conjunction with peptide pools that cover the sequence of tyrosinase (Tyr), MAGE-3, Melan/MART-1, gp100, and NY-ESO-1 to charact erize the melanoma antigen (MA)-specific CD8 cell repertoire in PBMC of 40 healthy human donors (HD). Tyr triggered IFN-γ-secreting CD8 cells in 33% HD within 24h of antigen stimulation ex vivo. MAGE-3, Melan/MART-1, and gp100 also induced recall responses in 10%, 5%, and 5% of HD, respectively. At this time point, these CD8 cells did not yet produce GzB. However, they engaged in GzB production 72h after antigen stimulation. By this 72h time point ex vivo, 58% of the HD responded to at least one, and typically several, of the MA. A closer characterization of the Tyr-specific CD8 cell repertoire showed it to be of low affinity, and to entail primarily the stem cell-like subpopulation.

Biography

Anna Przybyla has completed her PhD from Poznan University of Medical Science and Postdoctoral fellowship from Cellular Technology Limited (CTL) in Cleveland, USA. She is an Adjunct in the Department of Cancer Immunology at the Poznan University of Medical Sciences where she is also involved in teaching college students. Her research field are melanoma genetics and immunology, immunomonitoring and genetically modified melanoma vaccine. She has published 10 papers in medical and scientific journals.

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