

HLA-B27 AND AXIAL-SPONDYLOARTHRITIS, A LONG-STANDING RELATIONSHIP

the 50th anniversary of its first description (1973 - 2023)

SPONDYLOARTHRITIS & FRIENDS IN SARDINIA 2nd edition

Friday 30th June 2023, Barumini
Center for Communication and Promotion
of Cultural Heritage "Giovanni Lilliu"

Director
Prof. Alberto Cauli



Università degli Studi di Cagliari



Azienda Ospedaliero
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PROLOGUE

HLA-B27 has multiple allelic variants, with some alleles such as the prototypic dominant Caucasian HLA-B*27:05 subtype being strongly associated with axial-SpA while others such as the Sardinian (Italy) HLA-B*27:09 variant (expressed in 20% of HLA-B27+ Sardinians) are not associated and are neutral in terms of disease susceptibility, as any other HLA-B alleles. HLA-B*27:09 differs from HLAB*27:05 by one amino acid (AA) substitution. Aspartic acid at position 116, in the a1 domain, is substituted to a histidine, therefore resulting in altered residues within their peptide binding clefts. Why a single AA substitution is able to reverse the pathogenetic properties of HLA-B27 is still a question of debates among scientists, but clearly the response to this question may unveil the key to axial-SpA pathogenesis.



“Su Nuraxi”, Barumini (Sardinia, Italy) nuragic civilization XVIII & III century B.C

Friday 30th June 2023

Center for Communication and Promotion of Cultural Heritage
"Giovanni Lilliu", Barumini

ore 9.30 *Arrival in Barumini*

ore 10.00 *Registration of participants - Welcome coffee*

ore 10.15 *Introduction to the course and illustration of objectives*

Prof. Alberto Cauli *Cagliari, Italy*

ore 10.30 **LECTIO MAGISTRALIS**

From Ankylosing Spondylitis to axial-SpA, a long journey

Prof.ssa Dèsirèe Van Der Heijde *Leiden, The Netherlands*

SESSION I

ore 11.00 *HLA-B27 and axial-SpA, the strongest HLA association ever described for any disease: B27 subtypes as possible key in understanding its role*
Prof. Alberto Cauli *Cagliari, Italy*

ore 11.30 *The gut, mucosal immunity and HLA-B27.
Clues for disease pathogenesis*
Prof. Francesco Ciccia *Napoli, Italy*

ore 12.00 *Axial-SpA and MRI, clues for disease pathogenesis*
Prof. Xenofon Baraliakos *Bochum, Germany*

ore 12.30 *Axial-SpA and US, clues for disease pathogenesis*
Prof.ssa Maria Antonietta D'Agostino *Roma, Italy*

ore 13.00 *Discussion*

ore 13.30 *Light lunch*

SESSION II

- ore 15.00 HLA-B27, how may it work for axial-SpA and related diseases, the three main hypothesis:
Artrritogenic peptide and T cell driven diseases hypothesis (classic HLA class I molecules role)?
Prof.ssa Maria Teresa Fiorillo *Rome, Italy*
- ore 15.30 HLA-B27 misfolding and ER stress response hypothesis
Prof. Robert Colbert *Bethesda USA*
- ore 16.00 HLA-B27 dimers and KIR ligands hypothesis.
Prof. Paul Bowness *Oxford, United Kingdom Great Britain*

SESSION III

- ore 16.30 ASAS/GRAPPA collaborative projects in axSpA
“The Axis project”, preliminary results
Prof.ssa Dafna Gladman *Toronto, Canada*
- ore 17.00 “ASAS Difficult to Treat SpA project”
Prof. Denis Poddubnyy *Berlin, Germany*
- ore 17.30 *Discussion*
- ore 18.00 *Exit registration and delivery of ECM materials*
- ore 18.30 *Magic Moment*
the 50th anniversary of its first description (1973 - 2023)
Guided visit to the archeological site of “Su Nuraxi” Barumini
- ore 20.30 *Traditional Sardinian dinner nearby the archeological site*



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