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Harnessing immune regulation for treatment of human diseases : CD4+CD25+ regulatory T cells & antibody glycosylation

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Harnessing Immune Regulation for Treatment of Human Diseases

**CD4⁺CD25⁺ regulatory T cells
&
antibody glycosylation**

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ABBREVIATIONS

RA: rheumatoid arthritis;
APCs: antigen-presenting cells;
Tfh: T follicular helper cells;
Tregs: regulatory T cells;
nTregs: naturally occurring Tregs;
iTregs: induced or adaptive Tregs;
Foxp3/FOXP3: forkhead box P3;
IDO: indoleamine 2,3 dioxygenase;
IPEX: immune dysregulation, polyendocrinopathy, enteropathy, X-linked syndrome;
mTGF- β : membrane-bound TGF- β ;
ATP: adenosine triphosphate;
AMP: adenosine monophosphate;
cAMP: cyclic AMP;
GITR: glucocorticoid-induced tumor necrosis factor receptor;
ADCC: antibody-dependent cellular cytotoxicity;
GlcNAc: N-acetylglucosamine;
pb-anti-CD3: plate-bound anti-CD3;
S_{CD25}⁻: one-week *in vitro* stimulated CD4⁺CD25⁻ T cells;
S_{CD25}⁺⁺: one-week *in vitro* stimulated CD4⁺CD25⁺⁺ Tregs;
mTNF- α : membrane-bound TNF- α ;
ATRA: all-*trans* retinoic acid;
B6: C57BL/6;
DBA: DBA/1J;
T_n: CD4⁺CD25⁻CD62L^{high}CD44^{low} naive T cells;
T_m: CD4⁺CD25⁻CD62L^{low}CD44^{high} memory T cells;
ACPA: anti-citrullinated peptide antibodies;
BCR: B-cell receptors;
ASCs: antibody-secreting cells;
LT- α : lymphotoxin- α ;
TLR: toll-like receptors;
ACN: acetonitrile;
2-AA: 2-aminobenzoic acid;
SPE: solid-phase extraction;
HILIC: hydrophilic interaction liquid chromatography;