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, enteropthy, 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;
Tn: $CD4^{+}CD25^{-}CD62L^{high}CD44^{low}$ naive T cells;
Tm: $CD4^{+}CD25^{-}CD62L^{low}CD44^{high}$ 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;