

# Supplementary File S1. Detailed Search Strategy and Equations Used

<b>1/ Pubmed [including Medline] : 468 results</b>
((("Fc receptor, neonatal"[Supplementary Concept] OR "Receptors, Fc"[Mesh:NoExp] OR "Receptors, IgG"[Mesh]) AND ("Nose"[Mesh] OR "Respiratory System"[Mesh:NoExp] OR "Respiratory Mucosa"[Mesh:NoExp] OR "Nasal Mucosa"[Mesh] OR "Mucous Membrane"[Mesh:NoExp] OR "Epithelial Cells"[Mesh:NoExp] OR "Alveolar Epithelial Cells"[Mesh] OR ("Dendritic Cells"[Mesh] AND ("Nose"[Mesh] OR "Respiratory System"[Mesh:NoExp] OR "Respiratory Mucosa"[Mesh:NoExp] OR "Nasal Mucosa"[Mesh] OR "Mucous Membrane"[Mesh:NoExp])) OR "Goblet Cells"[Mesh] OR "Neuroepithelial Cells" [Mesh] OR "Epithelium"[Mesh:NoExp] OR "Basement Membrane"[Mesh:NoExp] OR "Basilar Membrane"[Mesh] OR "Administration, Intranasal"[Mesh] OR "Administration, Mucosal"[Mesh:NoExp] OR "Administration, Topical"[Mesh:NoExp] OR "Administration, Inhalation"[Mesh] OR "Lung"[Mesh]) AND ("Aerosols"[Mesh] OR "Drug Delivery Systems"[Mesh] OR "Drug Evaluation, Preclinical"[Mesh] OR "Nebulizers and Vaporizers"[Mesh] OR "Dose-Response Relationship, Drug"[Mesh] OR "Molecular Targeted Therapy"[Mesh] OR "Biological Transport"[Mesh] OR "Recombinant Fusion Proteins"[Mesh] OR "Protein Engineering"[Mesh] OR "Antibodies, Monoclonal"[Mesh] OR "Antibody Affinity"[Mesh] OR "Autoimmune Diseases"[Mesh] OR "Binding Sites, Antibody"[Mesh] OR "Half-Life"[Mesh] OR "Histocompatibility Antigens Class I"[Mesh] OR "Models, Molecular"[Mesh] OR "Biological Availability"[Mesh] OR "Permeability"[Mesh] OR "Endocytosis"[Mesh] OR "Transcytosis"[Mesh] OR "Receptors, Albumin"[Mesh] OR "Albumins"[Mesh:NoExp] OR "Immunoglobulin Fc Fragments"[Mesh] OR "Immunoglobulin G"[Mesh] OR "Immunity, Mucosal"[Mesh] OR "Respiratory System Agents"[Pharmacological Action] OR "Pharmacokinetics"[Mesh] OR "pharmacokinetics"[Subheading] OR "Homeostasis"[Mesh] OR "Ligands"[Mesh] OR "adverse effects"[Subheading] OR "toxicity"[Subheading]) AND (English[lang] OR French[lang]))
OR
((FcRn[tiab] OR (Fc[tiab] AND Recept*[tiab] AND neonat*[tiab]) OR (Fcgrt[tiab] AND protein*[tiab])) AND (Nose*[tiab] OR Nasal*[tiab] OR Intranasal*[tiab] OR Mucosal*[tiab] OR Mucous*[tiab] OR Epitheli*[tiab] OR Neuroepitheli*[tiab] OR ((Dendritic*[tiab] OR Goblet*[tiab]) AND Cell*[tiab]) OR ((Basement*[tiab] OR Basal*[tiab] OR Basilar*[tiab]) AND (Membrane*[tiab] OR Lamina*[tiab])) OR Inhal*[tiab] OR Inspirat*[tiab] OR Lung*[tiab]) AND (Aerosol*[tiab] OR "Drug Delivery Systems"[tiab] OR Nebuliz*[tiab] OR Vaporiz*[tiab] OR "Molecular Targeted Therap*" [tiab] OR "Biological Transport*" [tiab] OR "Recombinant Fusion Protein*" [tiab] OR (Protein*[tiab] AND Engineering*[tiab]) OR ((Antibod*[tiab] AND (monoclonal[tiab] OR affinit*[tiab] OR "binding site*" [tiab])) OR "Autoimmune Disease*" [tiab] OR "Half-Life*" [tiab] OR Halflife*[tiab] OR (Histocompatibilit*[tiab] AND Antigen*[tiab] AND "Class I" [tiab]) OR (Model[tiab] AND Molecular*[tiab]) OR ((Biologic*[tiab] OR Physiologi*[tiab] OR Equivalen*[tiab]) AND Availabilit*[tiab]) OR Permeabilit*[tiab] OR Endocytos*[tiab] OR Transcyto*[tiab] OR ((Transcyto*[tiab] OR Transcellular*[tiab]) AND (Pathway*[tiab] OR Transport*[tiab])) OR (Receptor*[tiab] AND Albumin*[tiab]) OR "Immunoglobulin G" [tiab] OR (Immun*[tiab] AND Mucosal[tiab]) OR "Respiratory System Agents" [tiab] OR Pharmacokinetic*[tiab] OR Homeostas*[tiab] OR Ligand*[tiab] OR "adverse effect*" [tiab] OR toxicit*[tiab]) AND (English[lang] OR French[lang]))

<b>2/ Web of Science [Clarivate Analytics] : 413 results</b>
(from Web of Science Core Collection)
You searched for: TOPIC: ((FcRn OR (Fc AND Recept* AND neonat*) OR (Fcgrt AND protein*))) AND TOPIC: ((Nose* OR Nasal* OR Intranasal* OR Mucosal* OR Mucous* OR Epitheli* OR Neuroepitheli* OR ((Dendriti* OR Goblet*) AND Cell*) OR ((Basement* OR Basal* OR Basilar*) AND (Membrane* OR Lamina*)) OR Inhal* OR Inspirat* OR Lung* OR nez OR muqueu* OR (cellule* AND (gobelet* OR caliciforme*)) OR (membrane* AND basilaire*) OR poumon*)) AND TOPIC: ((Aerosol* OR "Drug Delivery Systems" OR Nebuli* OR Vaporit* OR "Molecular Targeted Therap*" OR "Biological Transport*" OR "Recombinant Fusion Protein*" OR (Protein* AND Engineering*) OR ((Antibod*) AND (monoclonal OR affinit* OR "binding site*")) OR "Autoimmune Disease*" OR "Half-Life*" OR Halflife* OR (Histocompatibilit* AND Antigen* AND "Class I") OR (Model AND Molecular*) OR ((Biologic* OR Physiologi* OR Equivalen*) AND Availabilit*) OR Permeabilit* OR Endocytos* OR Transcyto* OR ((Transcyto* OR Transcellular*) AND (Pathway* OR Transport*)) OR (Receptor* AND Albumin*) OR "Immunoglobulin G" OR (Immun* AND Mucosal) OR "Respiratory System Agents" OR Pharmacokinetic* OR Homeostas* OR Ligand* OR "adverse effect*" OR toxicit* OR medicament* OR "maladie* autoimmun*" OR "maladie* auto-immun*" OR pharmacocin é* OR ((Effet* OR é v é nement* OR incident* OR r é action*) AND (ind é sirable* OR secondaire* OR d é d é è* OR n é faste* OR noci* OR nuisible*)) OR "th é rapie* mol é culaire* ciblé*" OR "prot é ne* de fusion* recombinante*" OR ((affinit é* OR monoclonal* OR site* OR fix*) AND anticorp*) OR Paratope* OR "Demi-vie" OR "demi vie" OR "mod é le* mol é culaire*" OR biodisponibilit é* OR bio-disponibilit é*)) AND LANGUAGE: (English OR French)
Timespan: 1900-2021. Indexes: SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, ESCI, CCR-EXPANDED, IC.
<b>3/ Scopus [Elsevier] : 339 results</b>
( TITLE-ABS-KEY ( ( fcRn OR ( fc AND recept* AND neonat* ) OR ( fcgrt AND protein* ) ) ) AND TITLE-ABS-KEY ( ( nose* OR nasal* OR intranasal* OR mucosal* OR mucous* OR epitheli* OR neuroepitheli* OR ( ( dendriti* OR goblet* ) AND cell* ) OR ( ( basement* OR basal* OR basilar* ) AND ( membrane* OR lamina* ) ) OR inhal* OR inspirat* OR lung* OR nez OR muqueu* OR ( cellule* AND ( gobelet* OR caliciforme* ) ) OR ( membrane* AND basilaire* ) OR poumon* ) ) AND TITLE-ABS-KEY ( ( aerosol* OR "Drug Delivery Systems" OR nebuli* OR vaporit* OR "Molecular Targeted Therap*" OR "Biological Transport*" OR "Recombinant Fusion Protein*" OR ( protein* AND engineering* ) OR ( ( antibod* ) AND ( monoclonal OR affinit* OR "binding site* ) ) ) OR "Autoimmune Disease*" OR "Half-Life*" OR halflife* OR ( histocompatibilit* AND antigen* AND "Class I" ) OR ( model AND molecular* ) OR ( ( biologic* OR physiologi* OR equivalen* ) AND availabilit* ) OR permeabilit* OR endocytos* OR transcyto* OR ( ( transcyto* OR transcellular* ) AND ( pathway* OR transport* ) ) OR ( receptor* AND albumin* ) OR "Immunoglobulin G" OR ( immun* AND mucosal ) OR "Respiratory System Agents" OR pharmacokinetic* OR homeostas* OR ligand* OR "adverse effect*" OR toxicit* OR medicament* OR "maladie* autoimmun*" OR "maladie* auto-immun*" OR pharmacocin é* OR ( ( effet* OR é v é nement* OR incident* OR r é action* ) AND ( ind é sirable* OR secondaire* OR d é d é è* OR n é faste* OR noci* OR nuisible* ) ) OR "th é rapie* mol é culaire* ciblé*" OR "prot é ne* de fusion* recombinante*" OR ( ( affinit é* OR monoclonal* OR site* OR fix* ) AND anticorp* ) OR paratope* OR "Demi-vie" OR "demi vie" OR "mod é le* mol é culaire*" OR biodisponibilit é* OR bio-disponibilit é* ) ) AND LANGUAGE ( english OR french ) )

4/ Cochrane Library [Wiley] : 3 results (1 Review + 2 Trials)
<p>1 Cochrane Review matching (FcRn OR (Fc AND Recept* AND neonat*) OR (Fcgrt AND protein*)) in Title Abstract Keyword AND (Nose* OR Nasal* OR Intranasal* OR Mucosal* OR Mucous* OR Epitheli* OR Neuroepitheli* OR ((Dendriti* OR Goblet*) AND Cell*) OR ((Basement* OR Basal* OR Basilar*) AND (Membrane* OR Lamina*)) OR Inhal* OR Inspirat* OR Lung* OR nez OR muqueu* OR (cellule* AND (gobelet* OR caliciforme*)) OR (membrane* AND basilaire*) OR poumon*) in Title Abstract Keyword AND (Aerosol* OR "Drug Delivery Systems" OR Nebuli* OR Vapor* OR "Molecular Targeted Therap*" OR "Biological Transport*" OR "Recombinant Fusion Protein*" OR (Protein* AND Engineering*) OR ((Antibod*) AND (monoclonal OR affinit* OR "binding site*")) OR "Autoimmune Disease*" OR "Half-Life*" OR Halflife* OR (Histocompatibilit* AND Antigen* AND "Class I") OR (Model AND Molecular*) OR ((Biologic* OR Physiologi* OR Equivalen*) AND Availabilit*) OR Permeabilit* OR Endocytos* OR Transcyto* OR ((Transcyto* OR Transcellular*) AND (Pathway* OR Transport*)) OR (Receptor* AND Albumin*) OR "Immunoglobulin G" OR (Immun* AND Mucosal) OR "Respiratory System Agents" OR Pharmacokinetic* OR Homeostas* OR Ligand* OR "adverse effect*" OR toxicit* OR medicament* OR "maladie* autoimmun*" OR "maladie* auto-immun*" OR pharmacocin é* OR ((Effet* OR é v é nement* OR incident* OR r é action*) AND (ind é sirable* OR secondaire* OR d é d é re* OR n é faste* OR noci* OR nuisible*)) OR "th é rapie* mol é culaire* ciblé*" OR "prot é ne* de fusion* recombinante*" OR ((affinit é* OR monoclonal* OR site* OR fix*) AND anticorp*) OR Paratope* OR "Demi-vie" OR "demi vie" OR "mod é le* mol é culaire*" OR biodisponibilit é* OR bio-disponibilit é*) in Title Abstract Keyword - (Word variations have been searched)</p>
<p>2 Trials matching (FcRn OR (Fc AND Recept* AND neonat*) OR (Fcgrt AND protein*)) in Title Abstract Keyword AND (Nose* OR Nasal* OR Intranasal* OR Mucosal* OR Mucous* OR Epitheli* OR Neuroepitheli* OR ((Dendriti* OR Goblet*) AND Cell*) OR ((Basement* OR Basal* OR Basilar*) AND (Membrane* OR Lamina*)) OR Inhal* OR Inspirat* OR Lung* OR nez OR muqueu* OR (cellule* AND (gobelet* OR caliciforme*)) OR (membrane* AND basilaire*) OR poumon*) in Title Abstract Keyword AND (Aerosol* OR "Drug Delivery Systems" OR Nebuli* OR Vapor* OR "Molecular Targeted Therap*" OR "Biological Transport*" OR "Recombinant Fusion Protein*" OR (Protein* AND Engineering*) OR ((Antibod*) AND (monoclonal OR affinit* OR "binding site*")) OR "Autoimmune Disease*" OR "Half-Life*" OR Halflife* OR (Histocompatibilit* AND Antigen* AND "Class I") OR (Model AND Molecular*) OR ((Biologic* OR Physiologi* OR Equivalen*) AND Availabilit*) OR Permeabilit* OR Endocytos* OR Transcyto* OR ((Transcyto* OR Transcellular*) AND (Pathway* OR Transport*)) OR (Receptor* AND Albumin*) OR "Immunoglobulin G" OR (Immun* AND Mucosal) OR "Respiratory System Agents" OR Pharmacokinetic* OR Homeostas* OR Ligand* OR "adverse effect*" OR toxicit* OR medicament* OR "maladie* autoimmun*" OR "maladie* auto-immun*" OR pharmacocin é* OR ((Effet* OR é v é nement* OR incident* OR r é action*) AND (ind é sirable* OR secondaire* OR d é d é re* OR n é faste* OR noci* OR nuisible*)) OR "th é rapie* mol é culaire* ciblé*" OR "prot é ne* de fusion* recombinante*" OR ((affinit é* OR monoclonal* OR site* OR fix*) AND anticorp*) OR Paratope* OR "Demi-vie" OR "demi vie" OR "mod é le* mol é culaire*" OR biodisponibilit é* OR bio-disponibilit é*) in Title Abstract Keyword - (Word variations have been searched)</p>

Caption : The databases were queried February 24th, 2021. Literature published up to and including April 24th, 2021 was considered for evaluation : 12 articles were collected but they were all subsequently excluded based on inclusion criteria defined in the registered Prospero protocol. End of review April 25th, 2021.