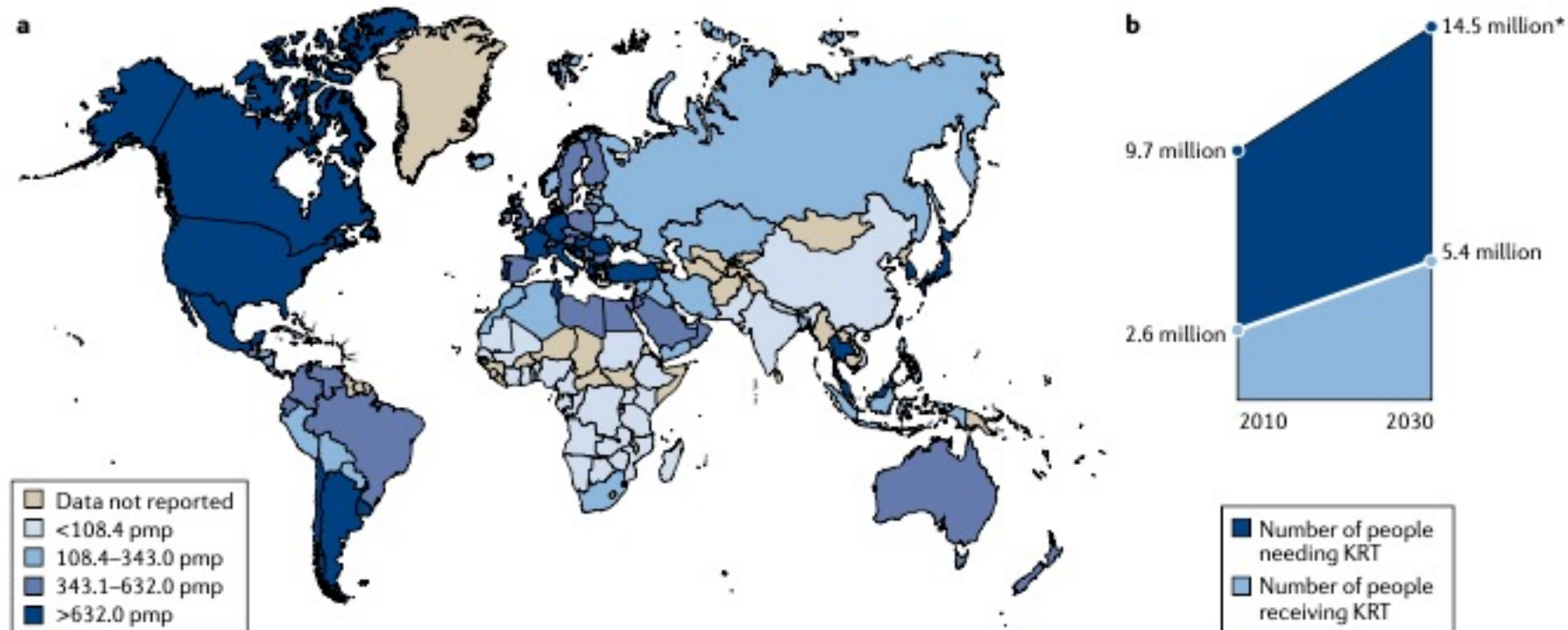




BioStock Life Science Spring Summit  
May 26, 2021

Pontus Nobréus  
CEO Glycorex Transplantation AB

# Global burden of kidney failure – a major and rising problem

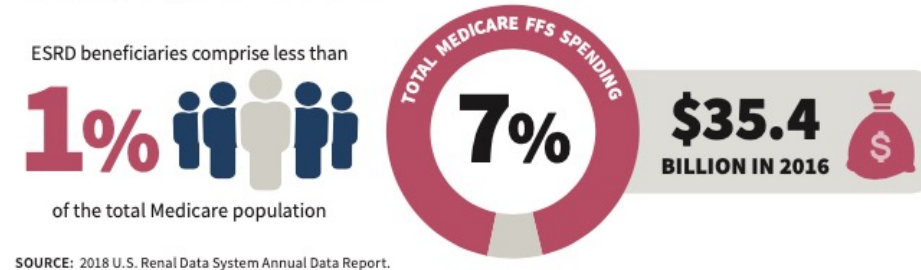


**Fig. 1 | Current and projected prevalence of kidney failure requiring kidney replacement therapy.** Growth is continuously outpacing the capacity of kidney replacement therapy (KRT), defined as maintenance dialysis or kidney transplant, especially in low-income and middle-income countries. **a** | Global prevalence of chronic dialysis. **b** | Estimated worldwide need and projected capacity for KRT by 2030. pmp, per million population. Adapted with permission from the ISN Global Kidney Health Atlas 2019.



# Kidney failure – large impact on the individual and the society

## Medicare spending for ESRD beneficiaries



*“Many developed countries spend 2–3% of their health care budgets on treatment for patients with ESKD, even though these patients comprise just 0.1–0.2% of the total population.”*

## Challenging situation in the US:

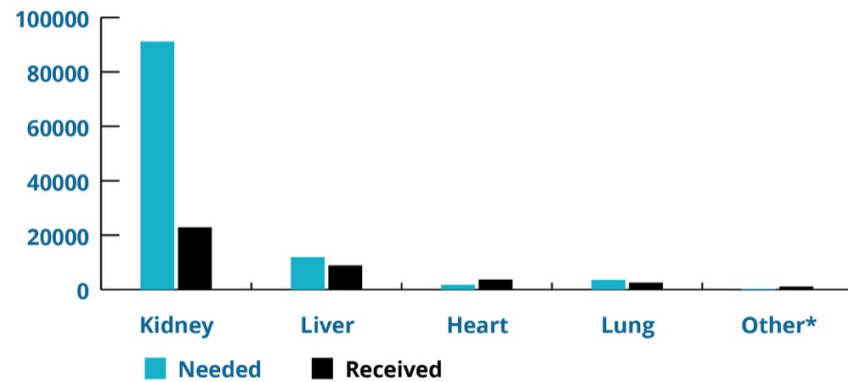
- More than 37 millions with chronic kidney disease
- >726,000 Americans need dialysis or kidney transplants to survive
- >500,000 receive dialysis three times a week
- Waiting time 3-5 years for a kidney transplantation depending on location
- On average, 20 people die every day from the lack of available organs for transplant

# Challenges with kidney transplantations

Gap between supply and demand

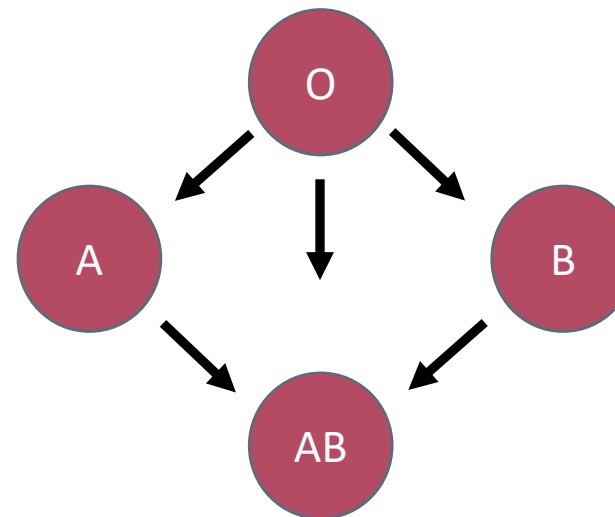
**Patients on the Waiting List vs. Transplants Performed**

By Organ in 2020

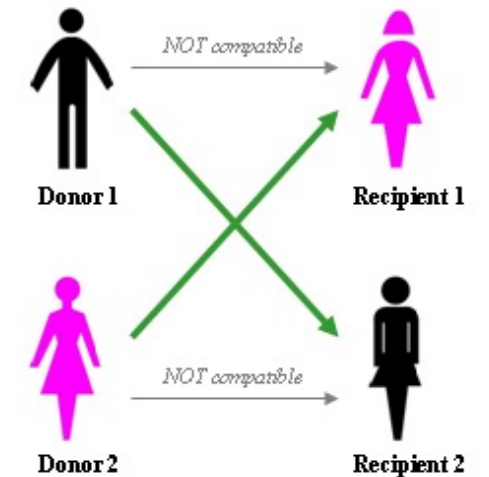


\*Other includes allograft transplants like face, hands, and abdominal wall.

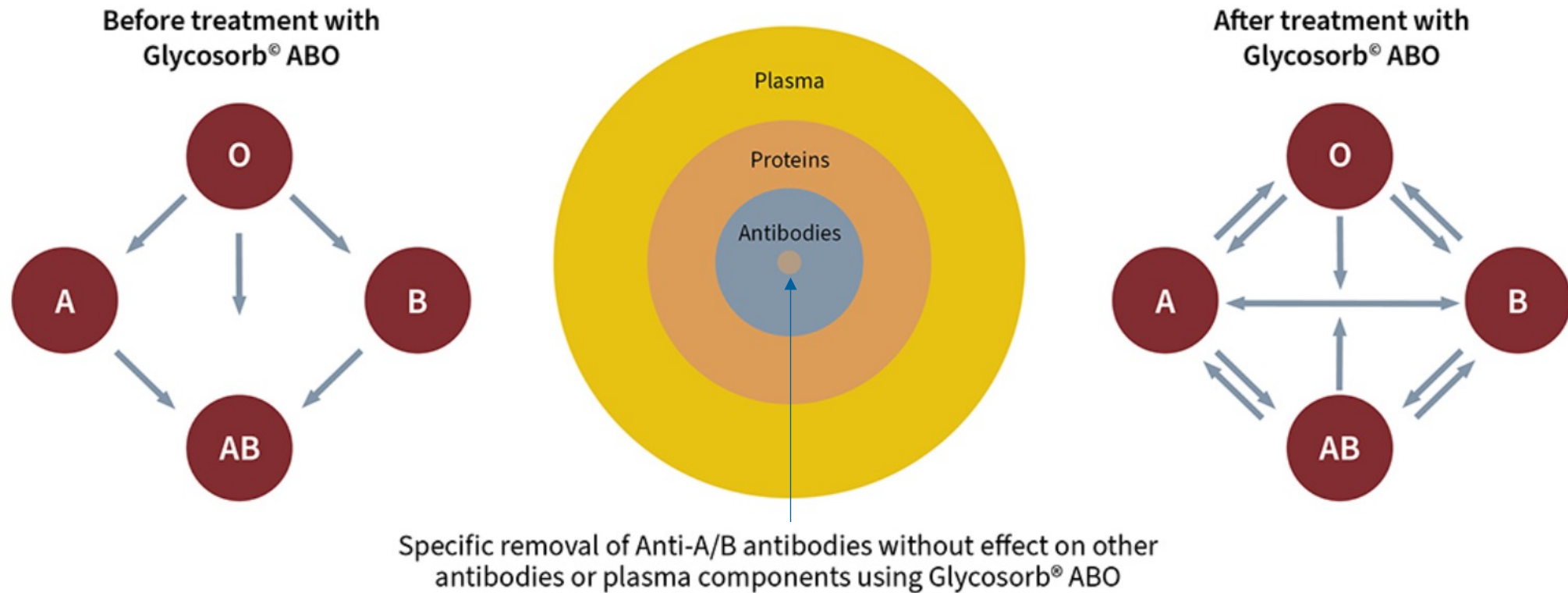
ABO incompatible blood groups



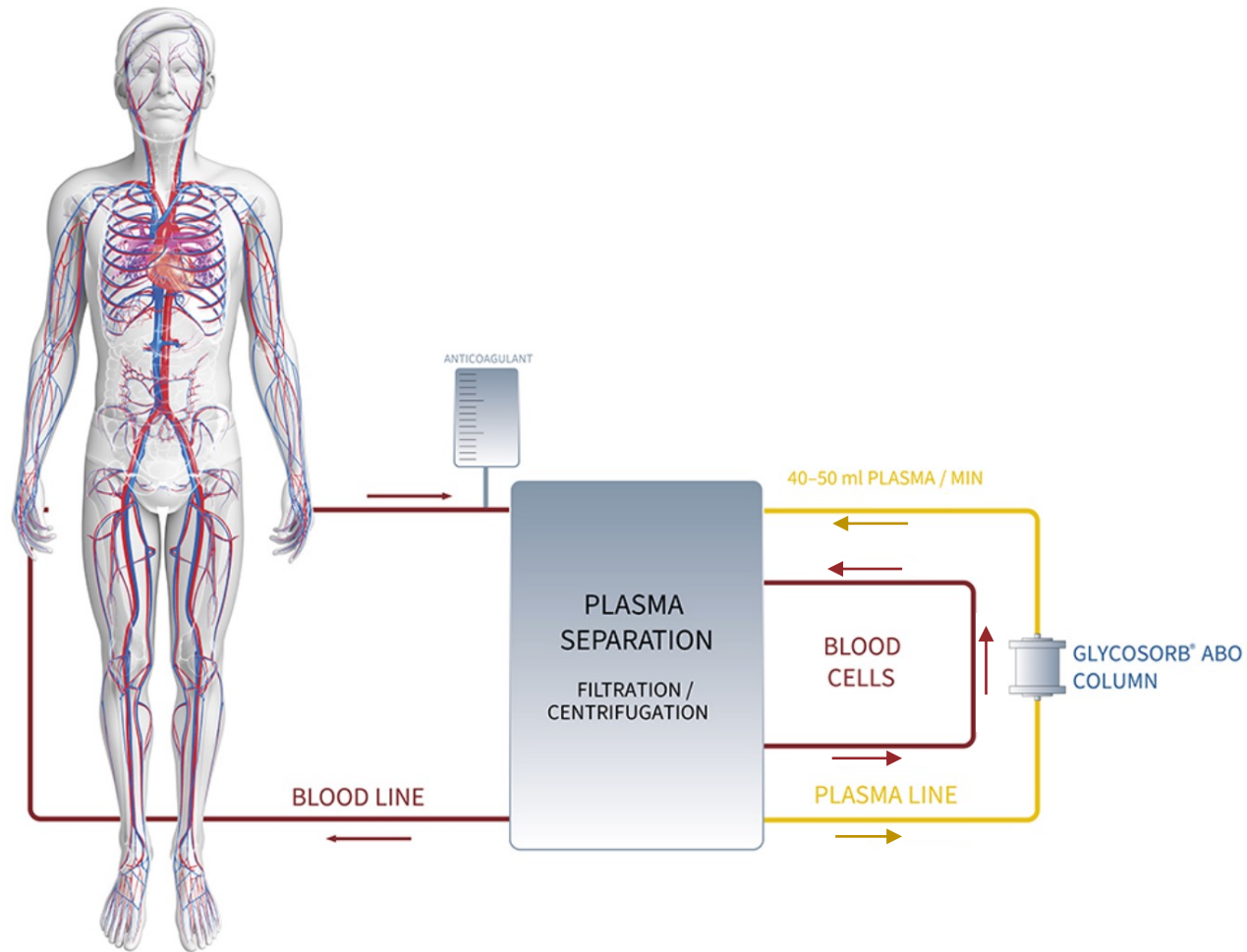
Kidney Paired Donation (KPD)



# Glycosorb® ABO enables transplants regardless of blood group



# Glycosorb® ABO works with standard plasma separation systems



In clinical use since 2001 > 60 publications

> 5,000 transplantations  
200 centers in ~ 30 countries

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Published online 2016 Jun 29. doi: [10.15171/jnp.2016.17](#)

PMCID: PMC4961822

PMID: [27540536](#)

## Long-term outcome of ABO-incompatible living donor kidney transplantation based on antigen-specific desensitization. An observational comparative analysis

[Jochen Wilbert](#)<sup>1</sup>, [Karl-Georg Fischer](#), [Przemyslaw Pisarski](#), [Thorsten Wiech](#), [Michael](#)  
[Leumann-Haefelin](#), [Oliver Drognitz](#), [Florian Emmerich](#), [Gerd](#)

[ndt/gfq229](#)

specific immunoadsorption to  
splant candidates

[Sallusto](#),<sup>4</sup> [Laure Esposito](#),<sup>1</sup> [Nicolas Doumerc](#),<sup>4</sup>  
[amar](#)<sup>1, 3, 7</sup>

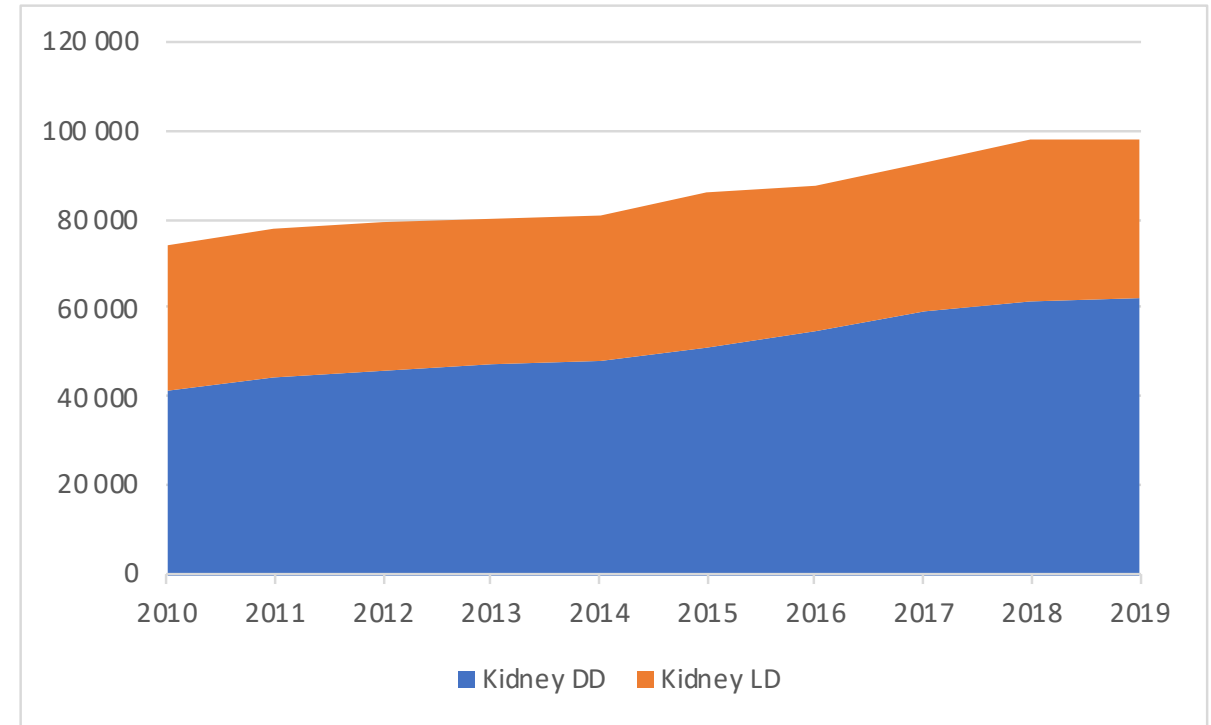
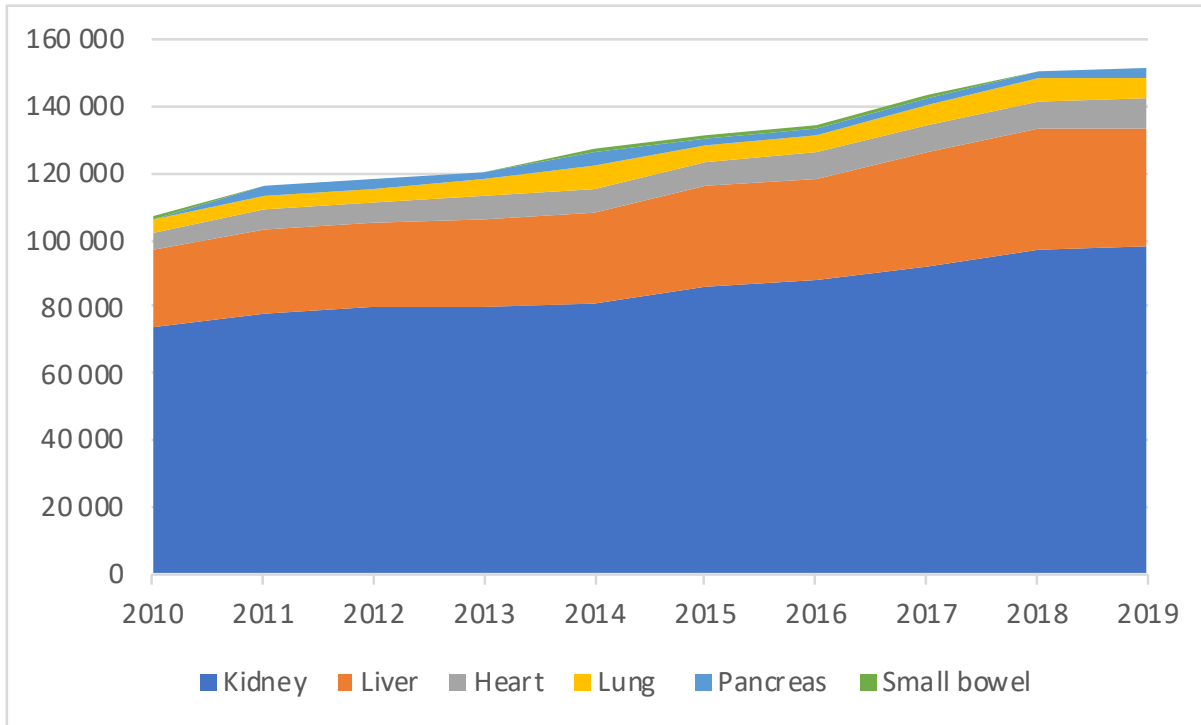
### TEMA TRANSPLANTATION

## Blodgruppsinkompatibla njurar kan transplanteras

ABO-inkompatibilitet är inte längre ett hinder för njurtransplantation.

Gunnar Tydén, professor, överläkare, transplantationskirurgiska kliniken, Karolinska universitetssjukhuset, Stockholm  
[gunnar.tyden@karolinska.se](mailto:gunnar.tyden@karolinska.se)  
Gunnela Nordén, docent, överläkare, Transplantationscentrum, Sahlgrenska universitetssjukhuset, Göteborg  
Ali-Reza Biglarnia, med dr, överläkare, transplantationskirurgiska enheten, Akademiska sjukhuset, Uppsala  
Peter Björk, med dr, överläkare, njur- och transplantationskliniken, Skånes universitetssjukhus, Malmö

## Global transplantations trends

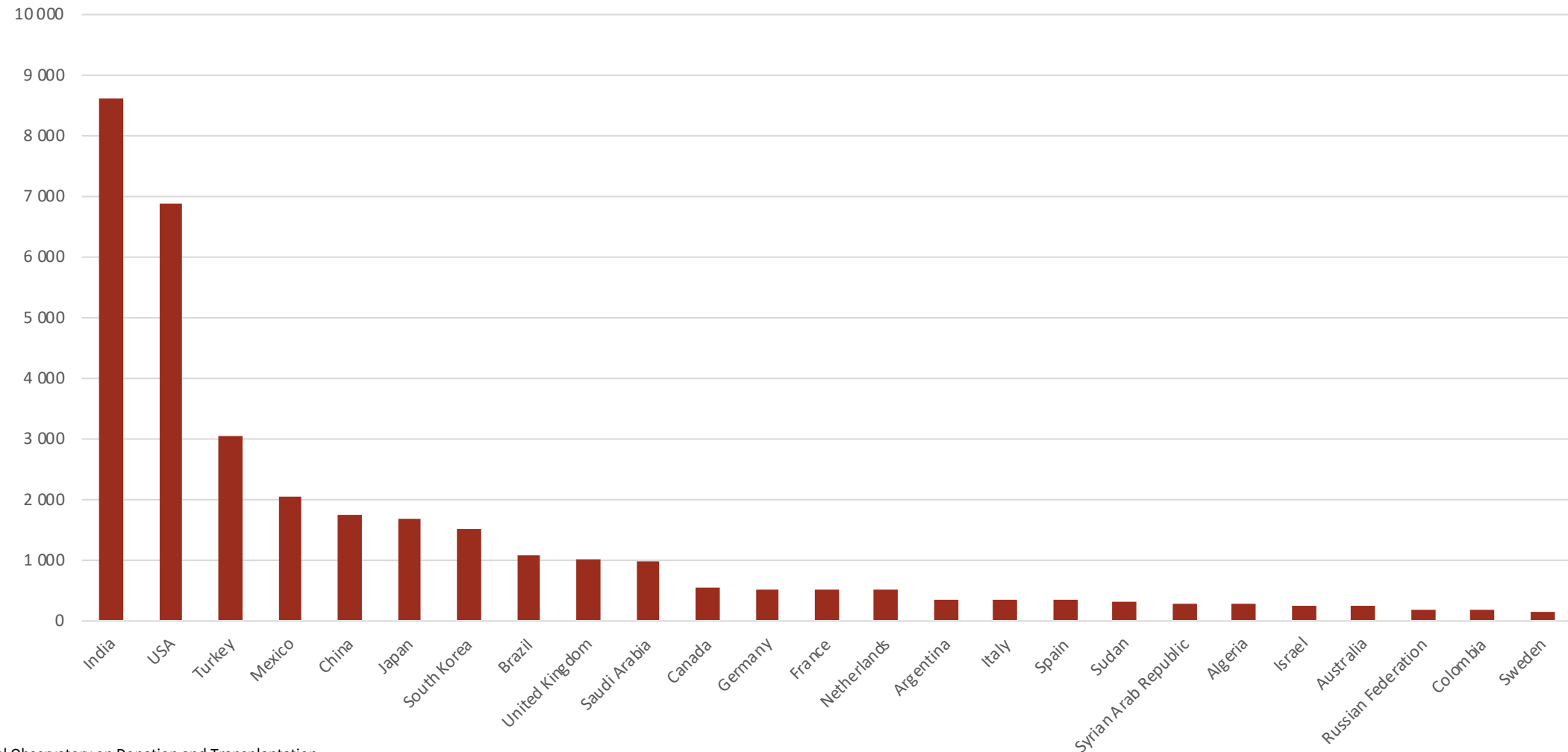


AAGR:

- Kidney DD 5%
- Kidney LD 1%



# Top 25 countries Living Donor Kidney transplantations 2019



# Glycosorb® ABO - large market potential Living Donor Kidney transplantations

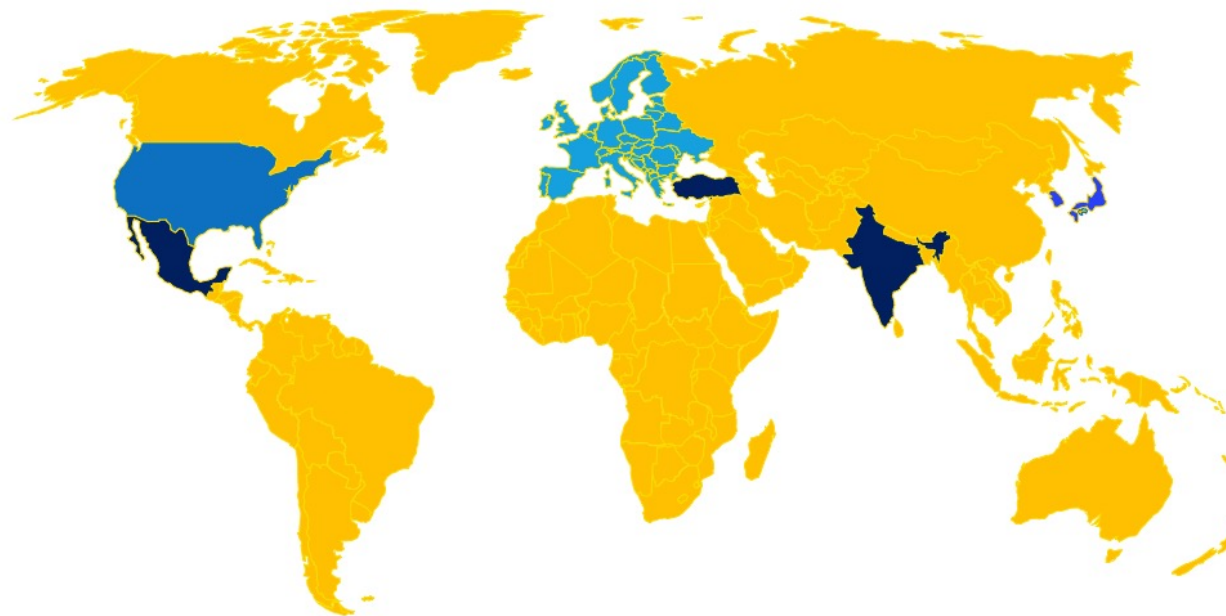
Number of annual global  
Kidney transplantations  
~ **98 000**



Annual Living donor Kidney  
transplantations  
~ **36 000**



Estimated number of annual  
blood group incompatible  
patients  
~ **11 000**



Europe  
> **100 million SEK**

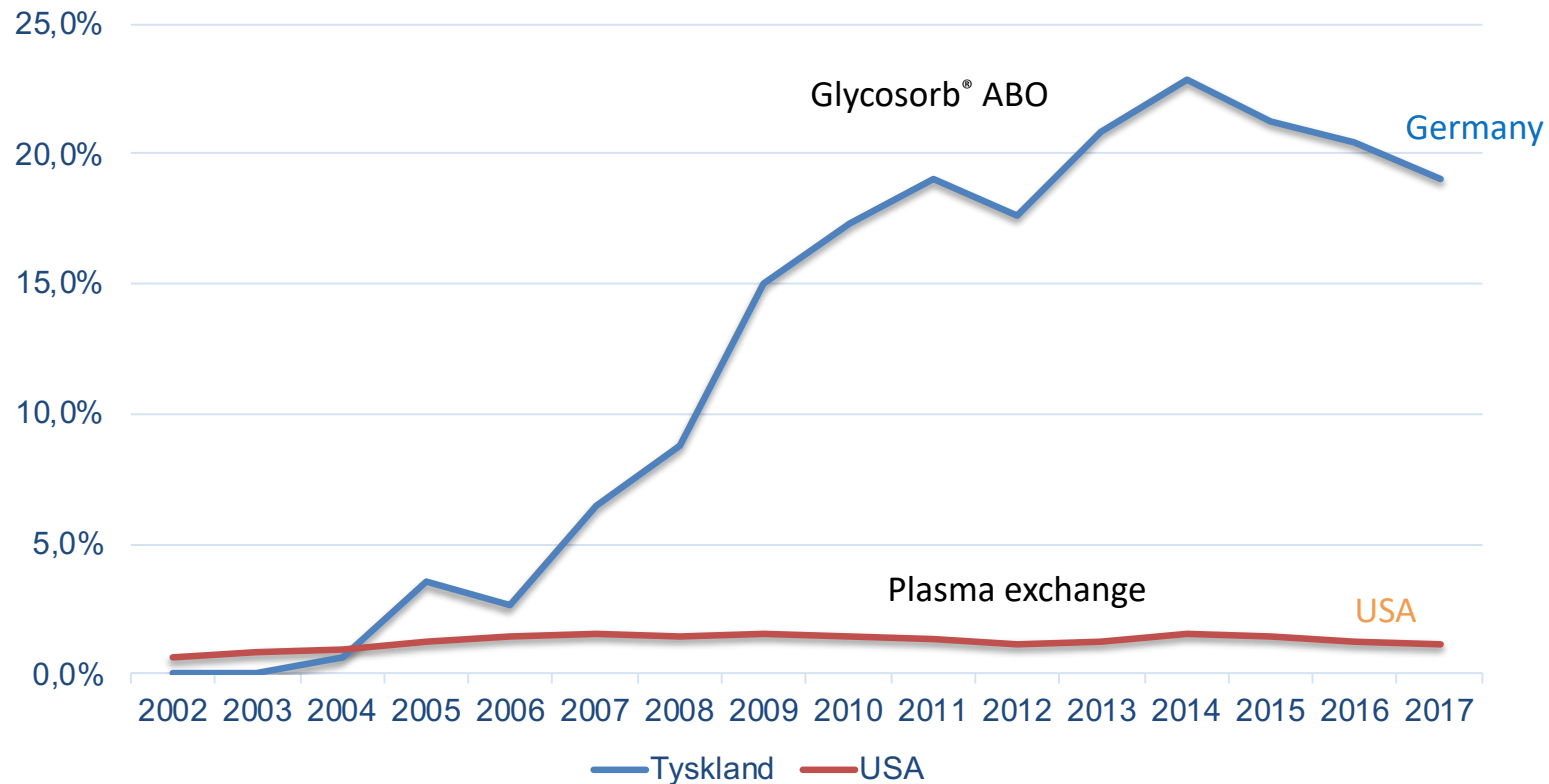
India, Mexico & Turkey  
> **125 million SEK**

USA  
> **160 million SEK**

Japan & South Korea  
> **40 million SEK**

Global addressable Living Donor Kidney ABO  
incompatible transplantation market  
~ **600 million SEK**

## Increasing number of blood group incompatible transplantations with Glycosorb® ABO



## Blood plasma – an important tool for health care providers

### **Blood transfusion given to patients in many circumstances such as:**

- Serious injuries
- Surgeries
- Childbirth
- Anemia
- Blood disorders
- Cancer treatments

### **Critical factors in massive transfusion protocols:**

- Time between trauma and transfusion
- Transport of plasma from blood bank to the clinical unit
- Mode of checking plasma unit before transfusion
- Provision of thawed/liquid plasma

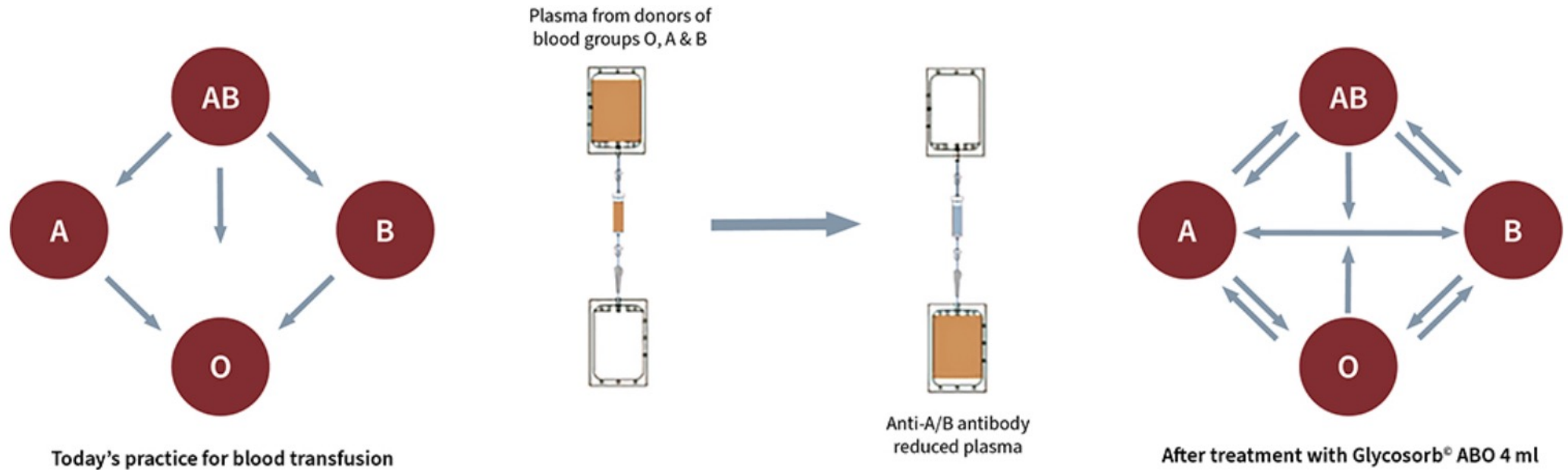
Benefit from plasma transfusion in massive hemorrhage lead to growing use of “universal” but scarce AB

AB plasma only accounts for about 5% of available blood plasma

*Plasma supply –  
a logistics challenge  
for blood banks*



# Glycosorb® ABO – designed to enable access to universal blood plasma



## Glycosorb® ABO makes it possible to:

- Improve stock keeping and logistics for the blood bank
- Reduce risk for transfusion mistakes and delays
- Provide access to adequate blood plasma in emergency situations
- Increase the availability of COVID-19 convalescent plasma by removing the blood group barrier

Estimated market for universal blood plasma in EU:  
> 1 billion SEK per year

## R&D Pipeline – focus on autoimmune diseases



### **Rheumatoid Arthritis (RA)**

- 5 million people in EU
- No cure – immunosuppressive and anti-inflammatory drugs – up to 10% do not respond
- Potential market in EU estimated to 5 billion SEK/year
- Biocompatibility studies completed with good results
- Next step clinical study on RA-patients, to form basis for CE marking (if positive)

### **Other projects**

- Myasthenia Gravis (MG)
  - Impact on muscle function
  - Typically treated with plasma exchange
  - > 100 000 people in the US and Europe
- HLA
- Galectins

## Main priorities 2021

- Living Donor Kidney Transplantation market
  - Europe
  - Emerging markets – India, Mexico, Turkey
  - FDA registration work in the US
- Commercialization of UBP-product
  - Pre-launch selected customers
  - Ambition to include UBP-product in scientific publications
  - Optimize and intensify sales efforts
- RA-project
  - Start process with clinical studies on RA-patients



Thank you!

