

In Memoriam Jon. J van Rood 1926-2017

1940-1945: HBS

1945-1951 Studie Medicijnen (Leiden)



1952-1958 : Specialisatie Interne Geneeskunde AZL

**Bloedbank
Leiden
Opgericht
1946**



1952: it was customary, the youngest resident (=me) was responsible for the Blood Bank **and for a ward of 16 beds.
Not foreseen was the start of open heart surgery**

**1952-1958 (van 1400 naar 8000 flessen/jaar
tbv open hart chirurgie (20-24 U/OK)**

Dit ging probleemloos.

NIET probleemloos: patiënten die regelmatig bloed nodig hadden

Henk. R met aplastische anemie

**Maandelijkse transfusies waren een kwelling: binnen een uur: koorts,
profuus zweten, rugpijn/ pijn in de benen, ziek!**

DD Pyrogenen?

Serumanalyse: leukocyten agglutinatie) ++

Remedie: Buffy- coat verwijderen ; allerlei filters of vriezen (VS)

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**Chills, high fever, nausea, fainting,
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Analysis: strong leukocyte antibodies.

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NEVER TRANSFUSED!

(Rh-D Ab were known)

Eureka:

**Stock of sera from 30 women with anti-D:
4 of 30 sera +++ leukocyte-Ab**

(Reprinted from Nature, Vol. 181, pp. 1735-1736, June 21, 1958)

Leucocyte Antibodies in Sera from Pregnant Women

ATTEMPTS to demonstrate leucocyte antibodies in sera from pregnant women, so far as we know, have been unsuccessful. However, from recent observations in our laboratory, we believe that they do occur.

A patient (H. B.)—sixth pregnancy (two abortions)—delivered of premature twins had a post-partum bleeding for which she received a blood transfusion.

J. J. VAN ROOD

J. G. EERNISSE

A. VAN LEEUWEN

Department of Immunohæmatology,

University Hospital,

Leyden.

April 24.



**Blood bank: Aad, Jon and
George**

**One way or the
other...they did it (1958)**

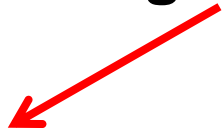
And then the train started



Leukocyten-agglutininen

Duidelijk: tgv transfusies EN zwangerschappen

Onduidelijk: de genetica en de betekenis



vgl met ABO/Rhesus?

Alleen maar NHFTR?

Hoe te onderzoeken?

Computer en Huidtransplantaties



Relationship between leukocyte antibodies and skin graft rejection
However: no clue for a blood group system

Second Eureka: use a computer

1965

2^{de} Histocompatibility Workshop Leiden/ 1^{ste} met uniform panel en computer voor data-analyse

1967

Oprichting Eurotransplant

1988

Oprichting Europdonor (Matchis)/BMDW/WMDA

1991-1917

Consultant Europdonor/Matchis

A Proposal for International Cooperation in Organ
Transplantation:
EUROTRANSPLANT

J. J. VAN ROOD

Department of Immunohematology, University Hospital, Leiden

HISTOCOMPATIBILITY TESTING 1967

EUROTRANSPLANT
1977
10 YEARS





ALLOGENE BEENMERG TRANSPLANTATIE

1951 : Lorenz e.a. (NIH) BMT beschermt muizen/cavia's na letale bestraling

1951-1967 : Circa 200 BMT's bij mensen zonder HLA typeren of MLC ; geen overlevers

1968 : Drie BMTs met HLA-A, -B id, MLC negative sibling donors (USA/Leiden).

H. de Koning et al., Lancet 1969



2013: 25 jaar Europdonor
Johan 45 jaar





1988: 8 registries:

20.000 donors



Inmiddels is BMDW/WMDA bestand ~ 30 miljoen stamceldonoren en zijn bij Matchis > 170.000 donoren ingeschreven.

Zolang er nog iets kon worden verbeterd aan SCT bleef Van Rood op zoek naar een nieuwe doorbraak.

Pregnancy and the IPA/NIMA effect

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Mother
IMA/**NIMA**

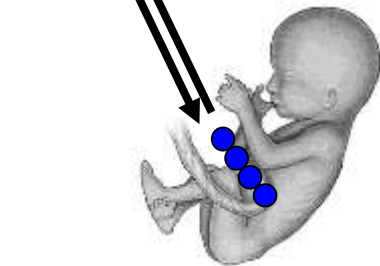
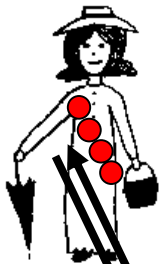
Father
IPA/NIPA

NIMA = non inherited maternal antigens

NIPA = non inherited paternal antigens

IMA = inherited maternal antigens

IPA = inherited paternal antigens



Patient IMA/**IPA**

The mother develops B and T cell immunity against the **IPA** of the fetus, which is controlled by T reg.

Likewise, the fetus develops immunity and T reg against the **NIMA**.

Immunity and regulation can persist lifelong in both mother and child.

De laatste 10 jaar zocht hij die, net als aan het begin van zijn carrière, bij het effect van zwangerschap op het immuunsysteem van moeder en kind.

Een levende legende is ons ontvallen

“serendipity and a prepared mind”:

One transfusion reaction determined his life.



July 2017
Prosit on the
NovoCord grant