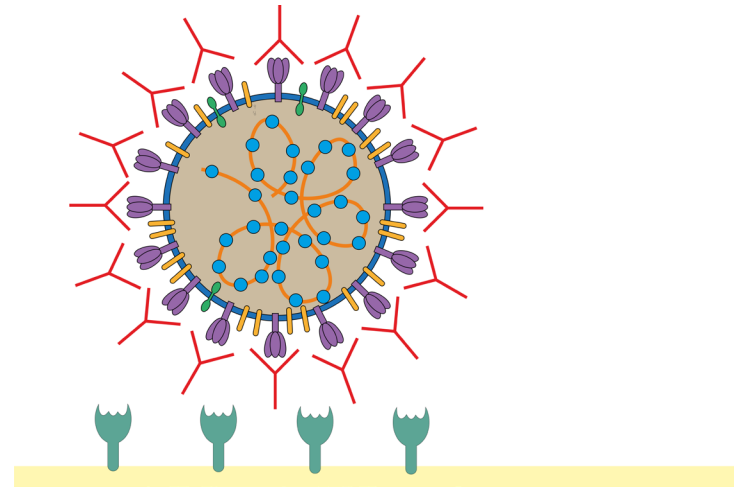


Die Bestimmung von neutralisierenden Antikörpern gegen SARS-CoV-2 mit dem VitaLab



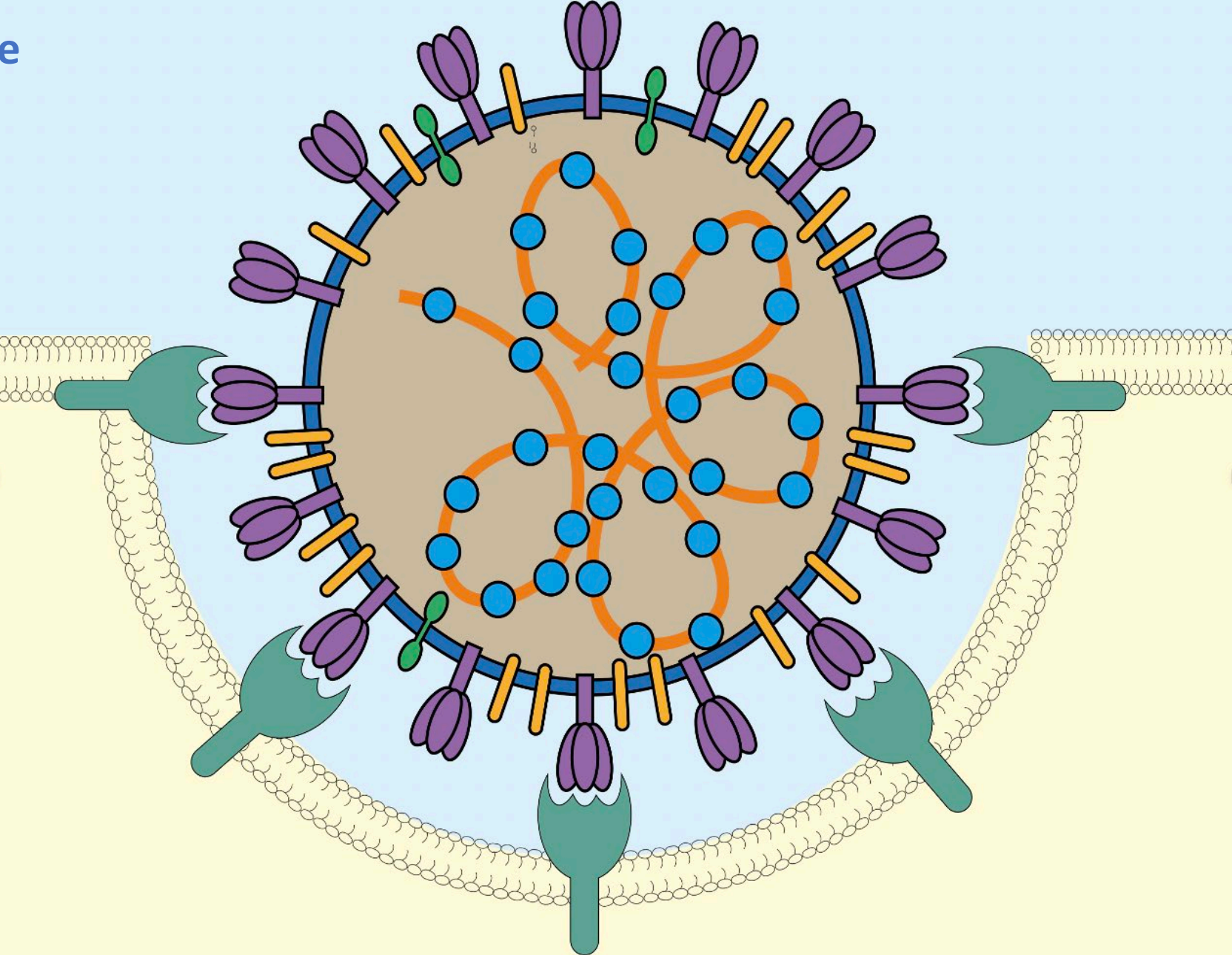
Dr. Peter Miethe
CEO FZMB GmbH

WHO International Standard for anti-SARS-CoV-2 immunoglobulin (human)



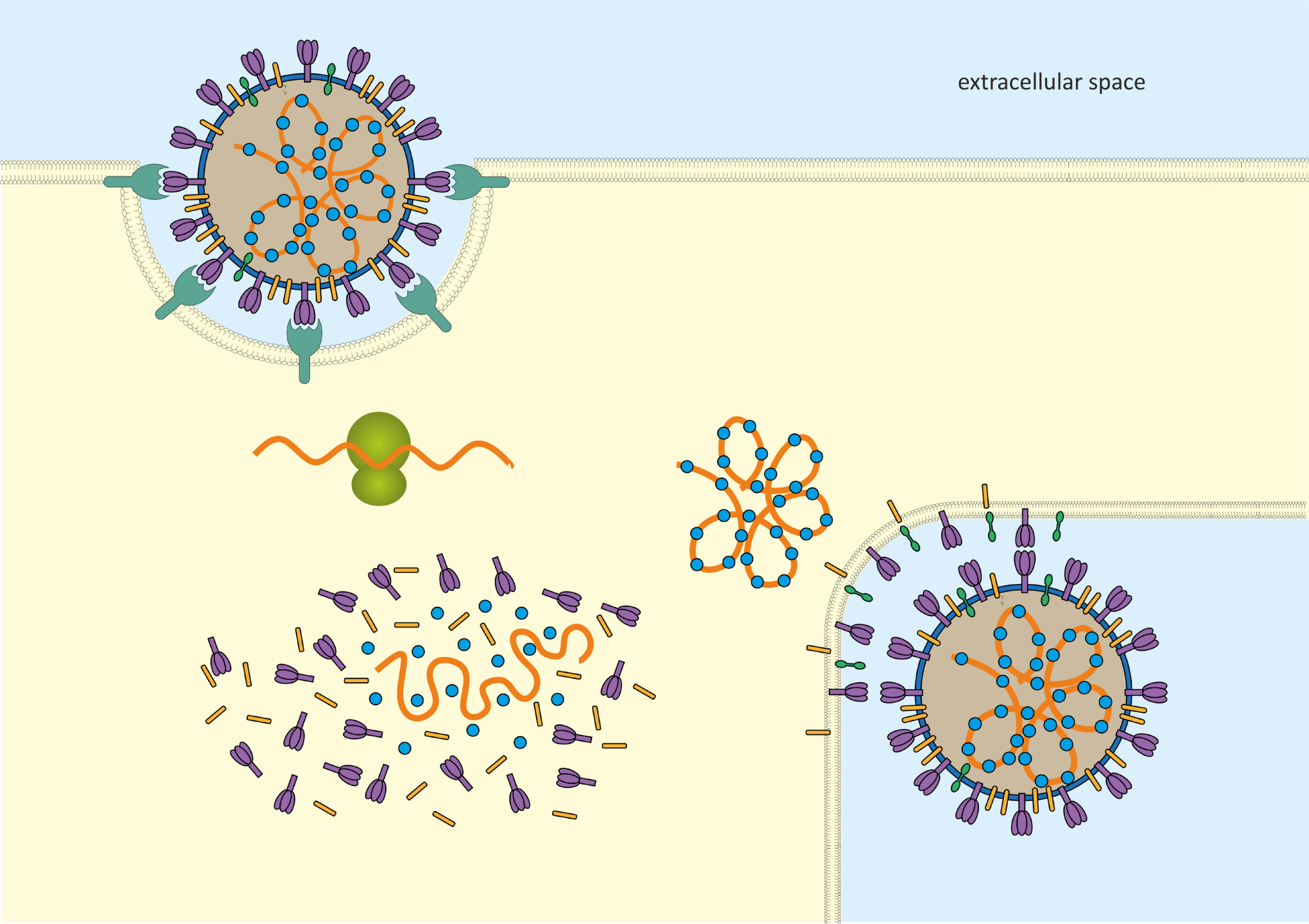
World Health Organization

Die durch den ACH Receptor vermittelte Bindung an humane Zellen

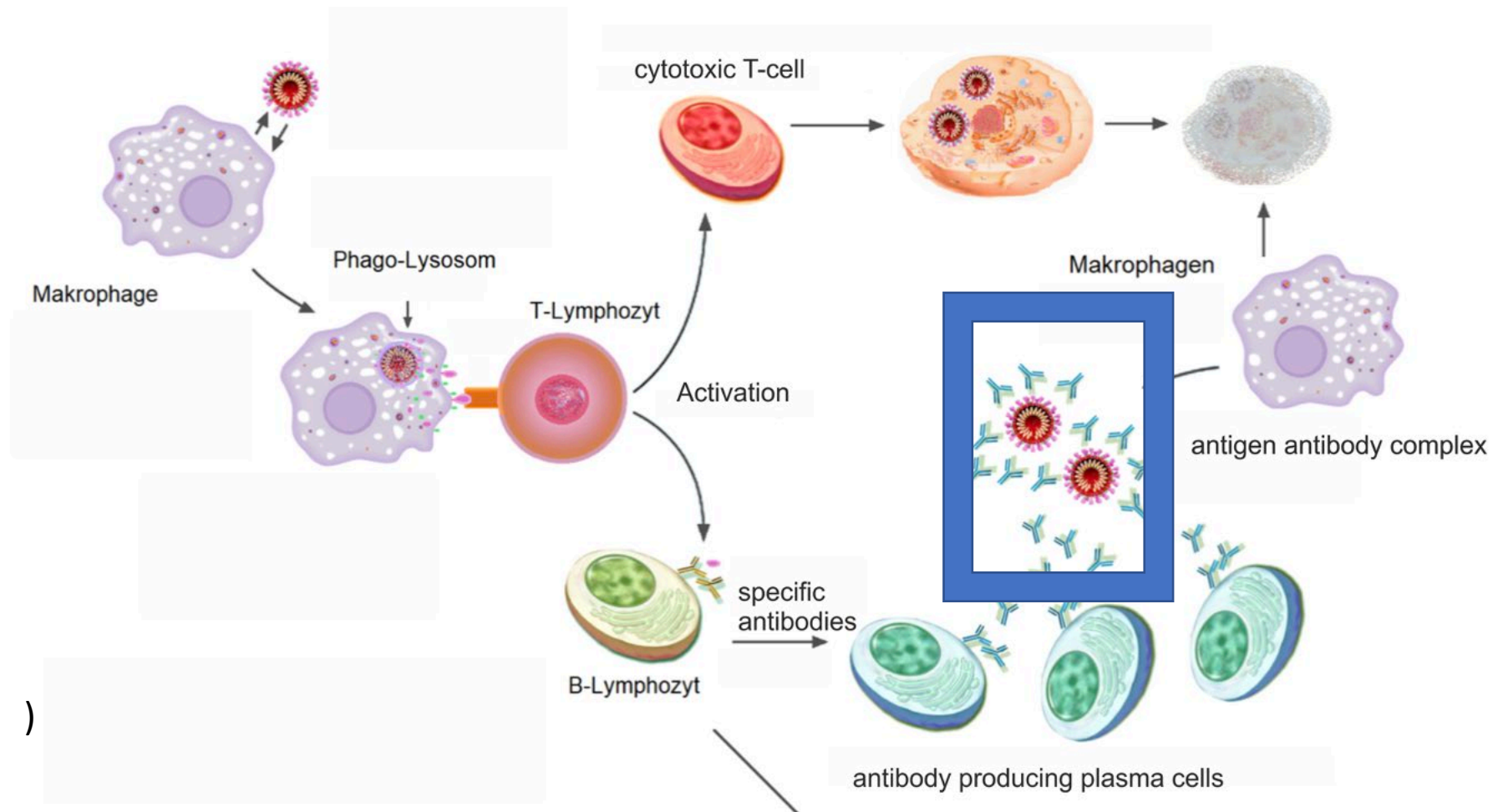


Humane Schleimhautzelle

Viral replication by the human cell

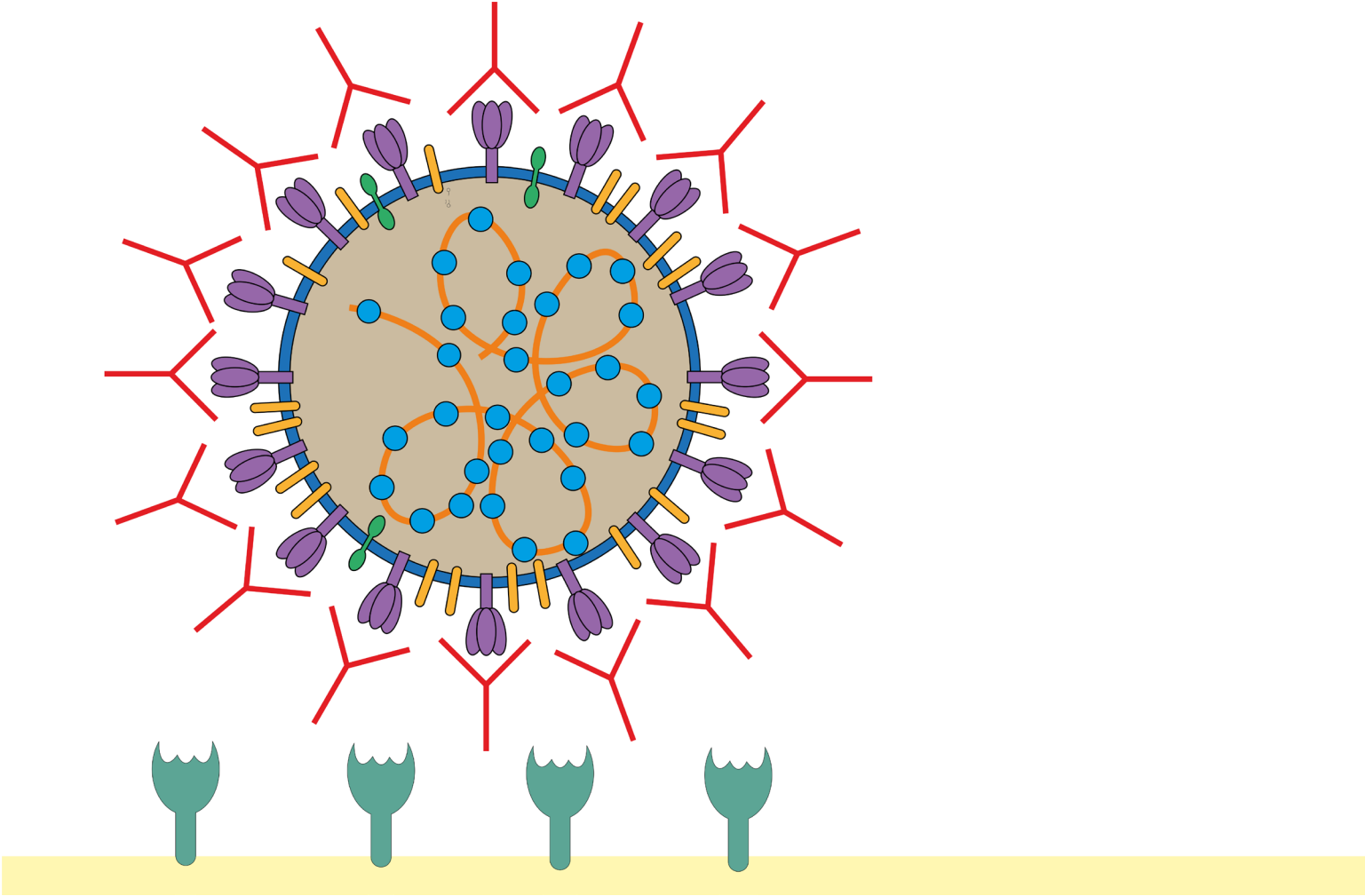


Immunantwort (etwas "simplifiziert")

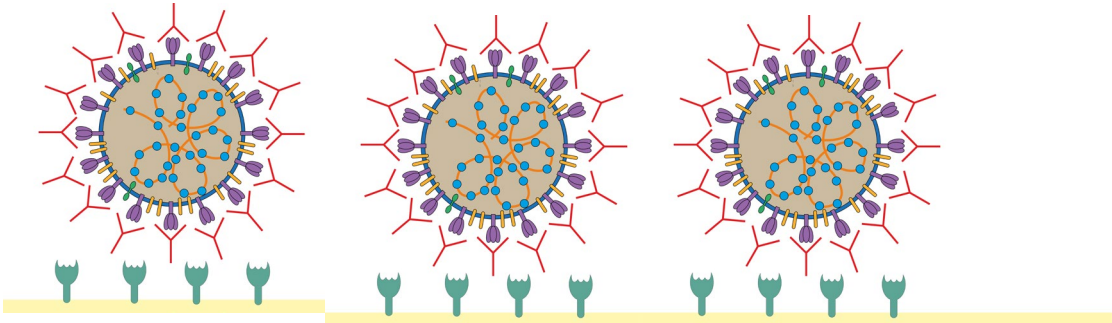
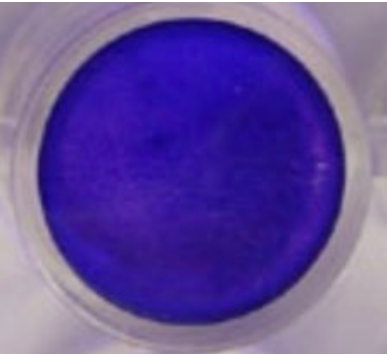
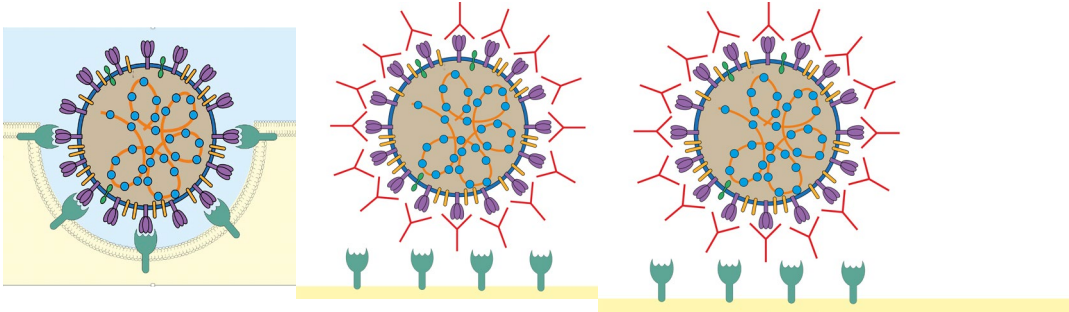
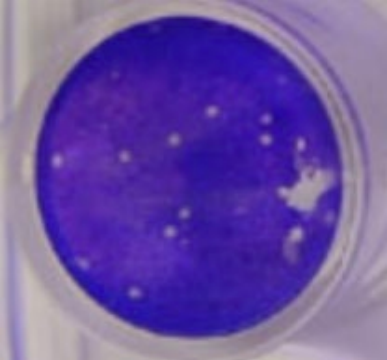
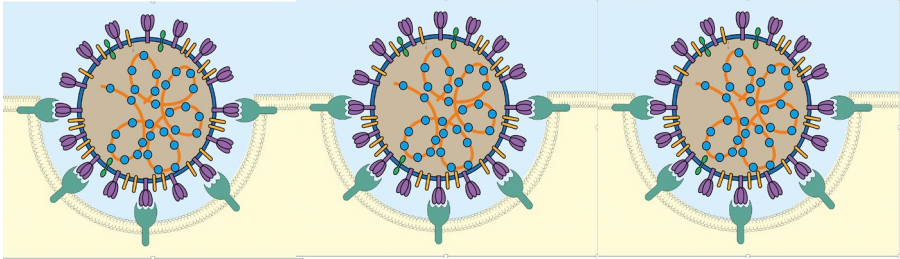
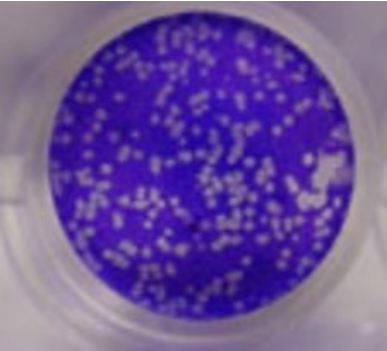


Neutralisierende Antikörper inhibieren die Bindung des Viruspartikel an den Rezeptor

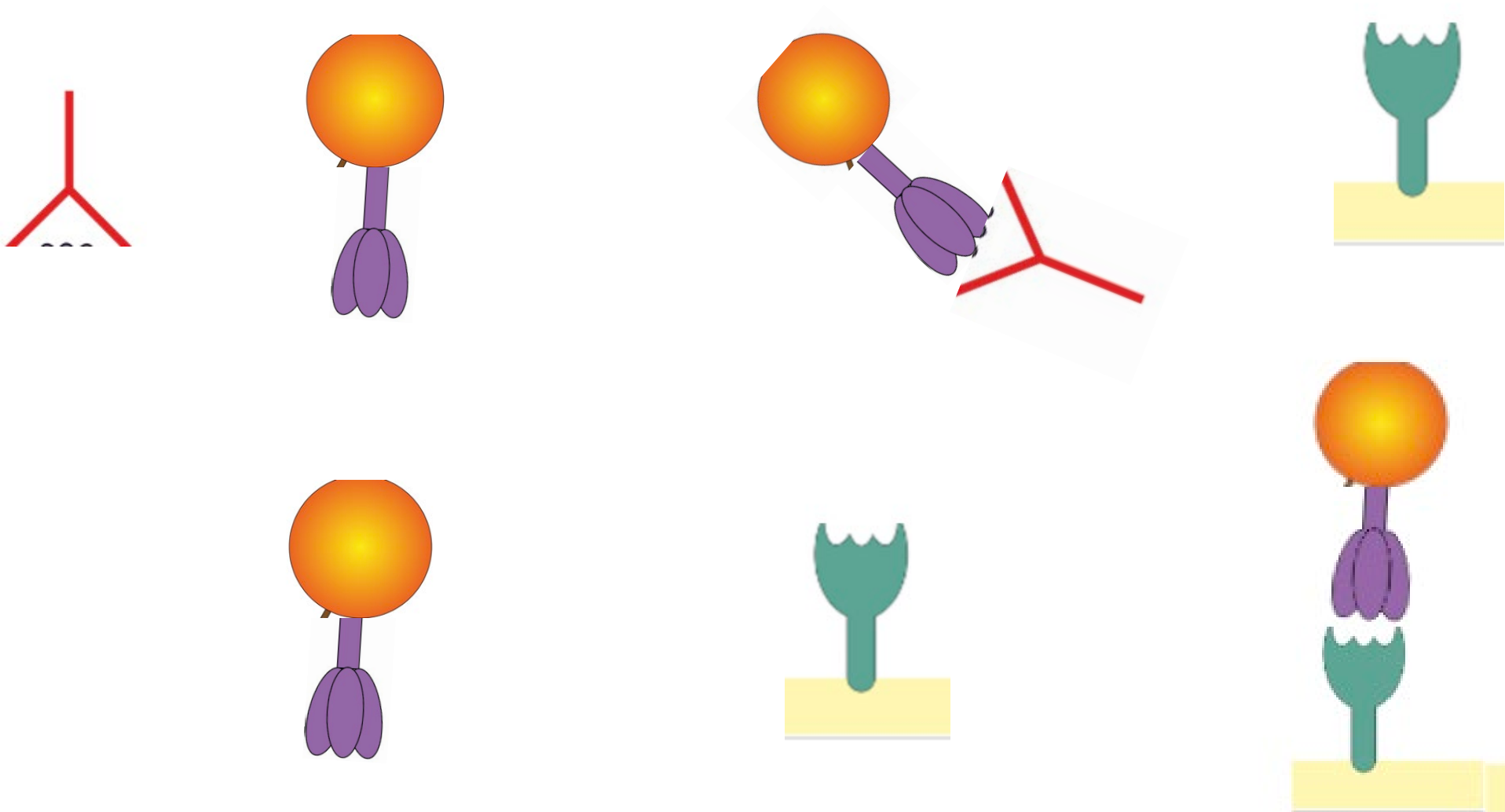
Wie kann man die inhibierende Wirkung = "Impfschutz" quantifizieren?

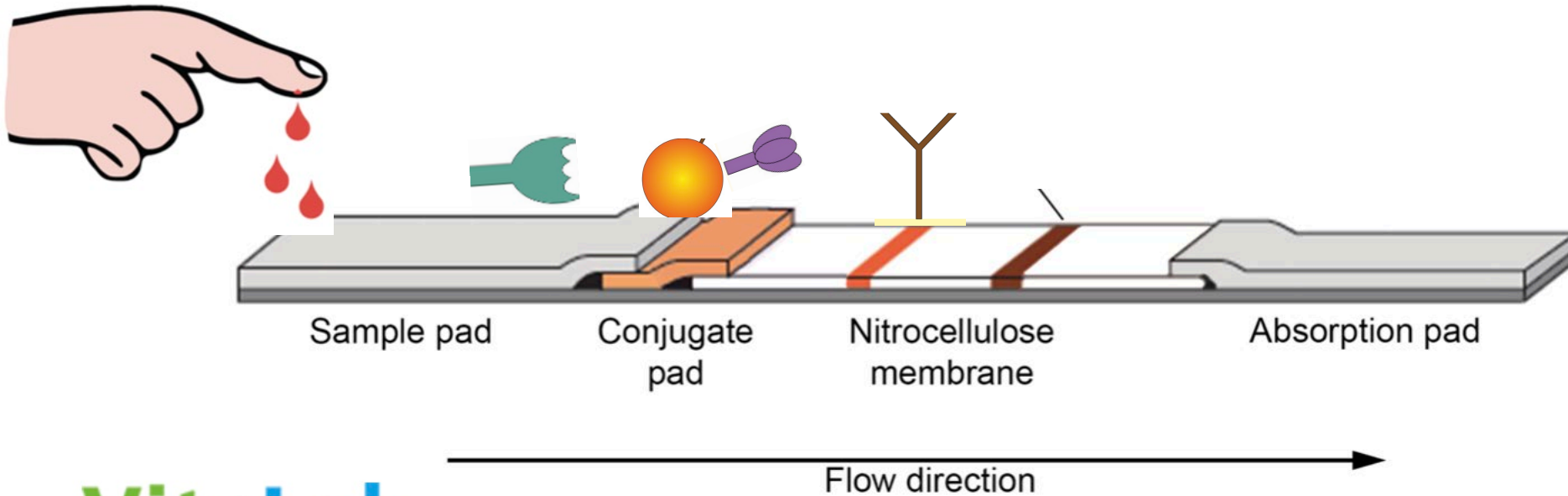


Der Goldstandard zur Quantifizierung ist die Serumtitration im Plague Assay



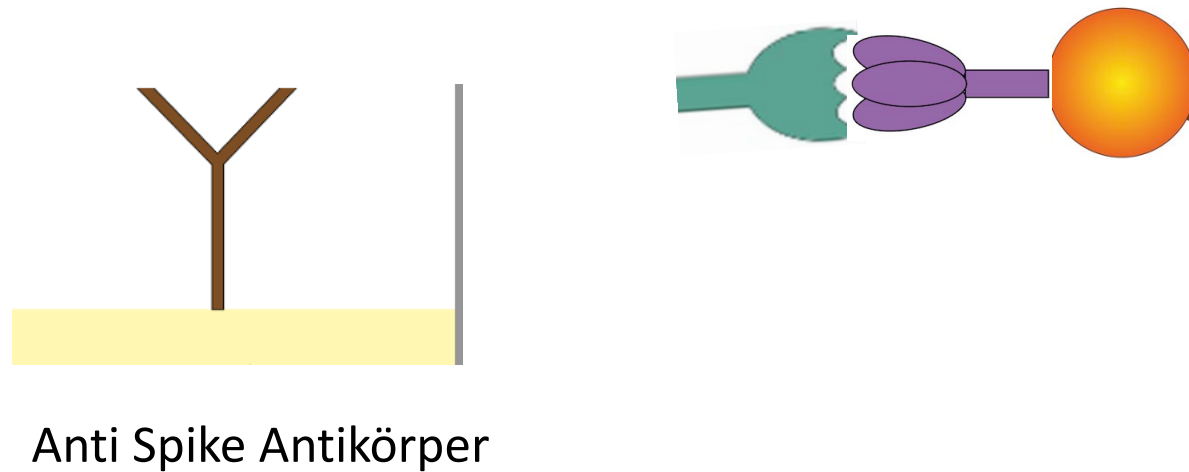
Surrogate virus neutralising test

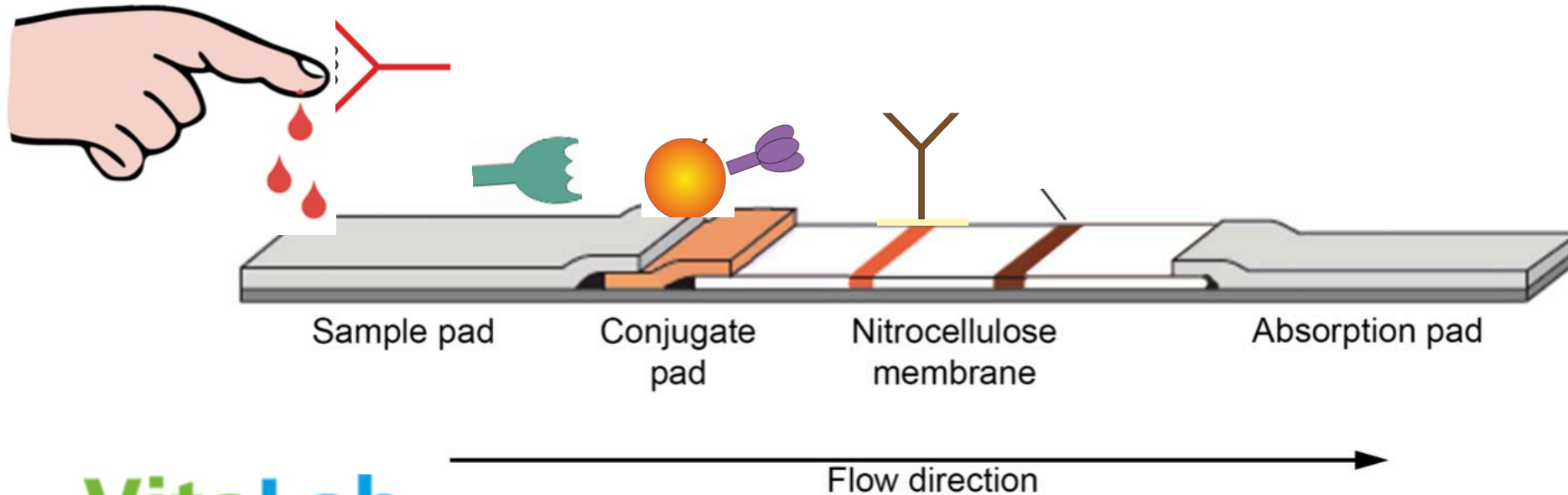




VitaLab

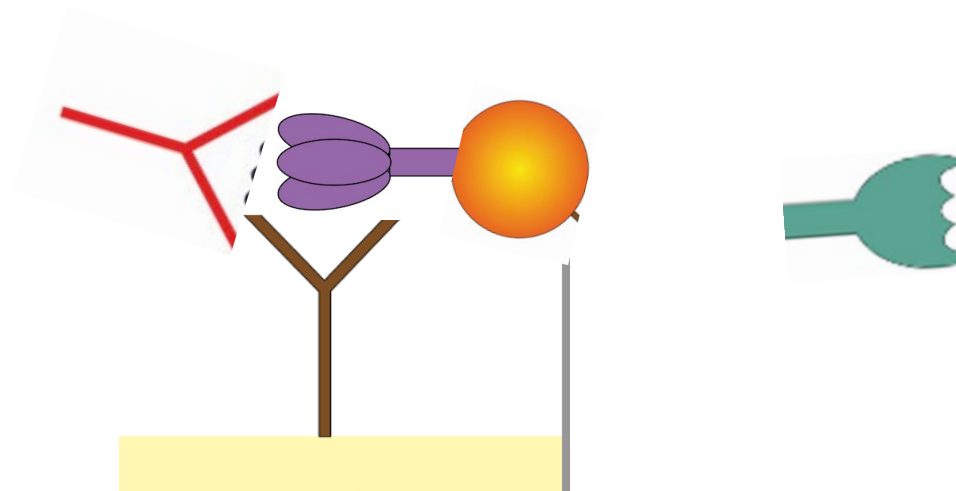
Streifentest - negativ





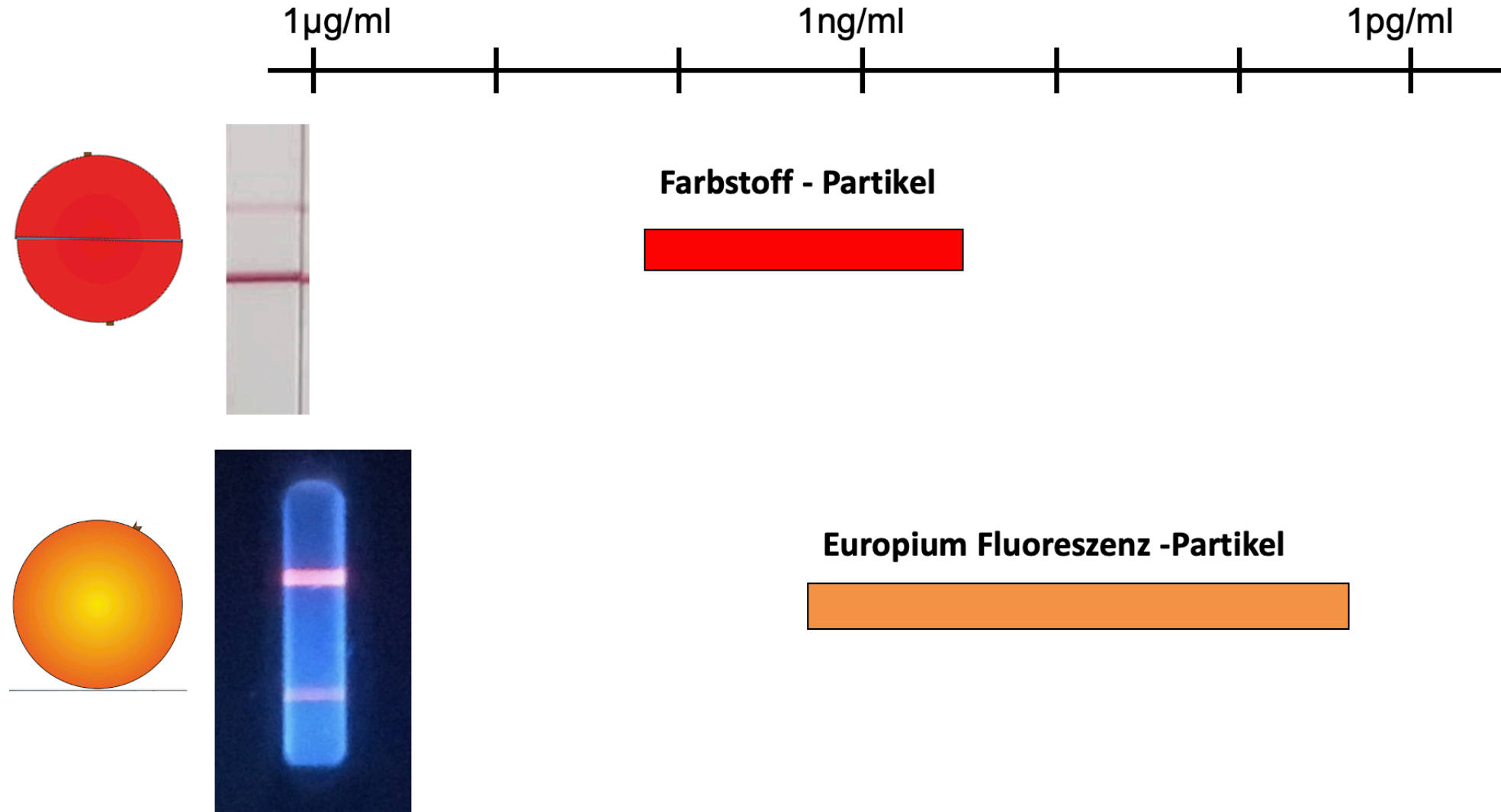
VitaLab

Streifentest - positiv

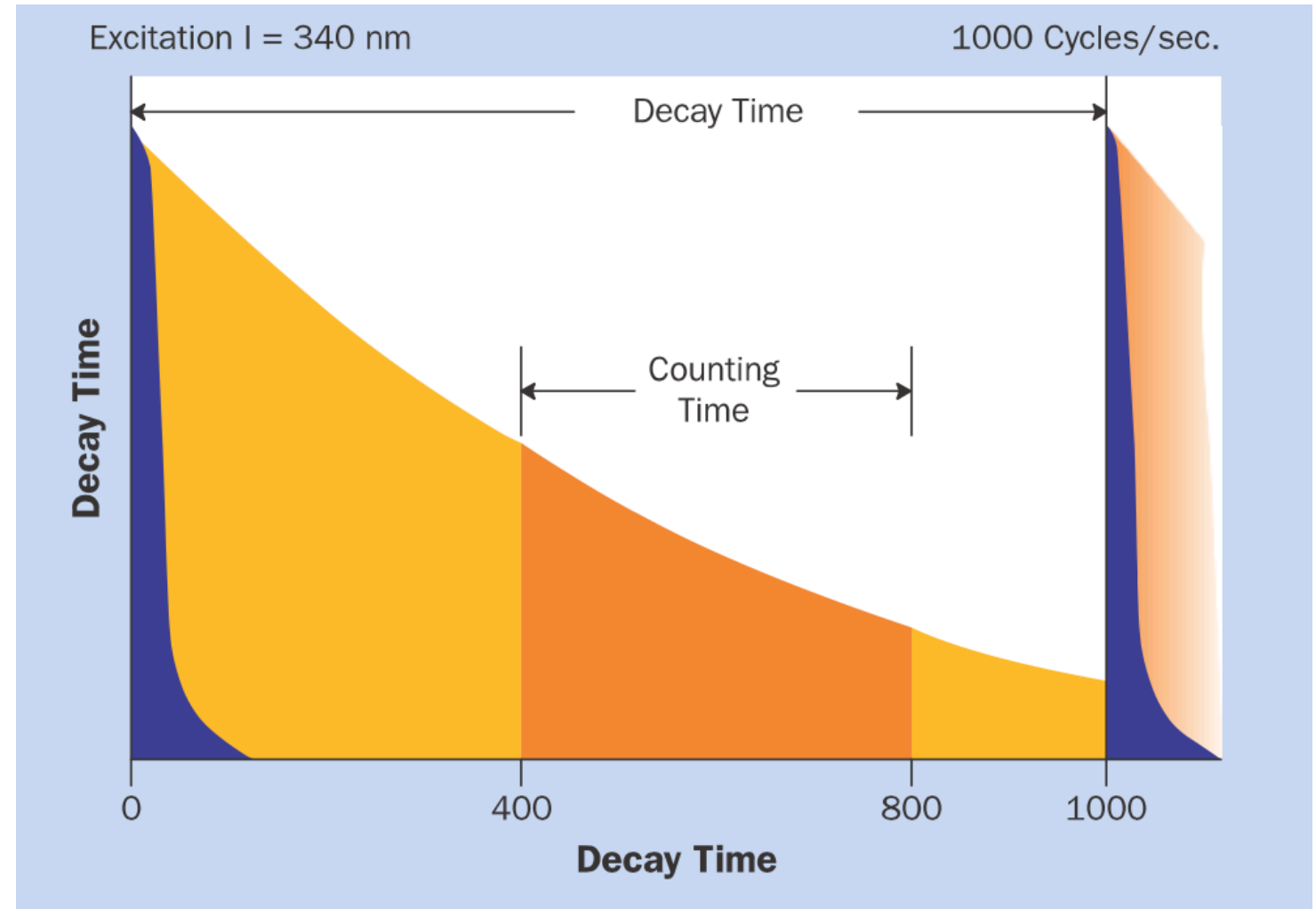


Anti Spike Antikörper

Die Auslesetechnik = zeitaufgelöste Fluoreszenz auf Basis von Europium Nanopartikeln



Das VitaLab Lesegerät

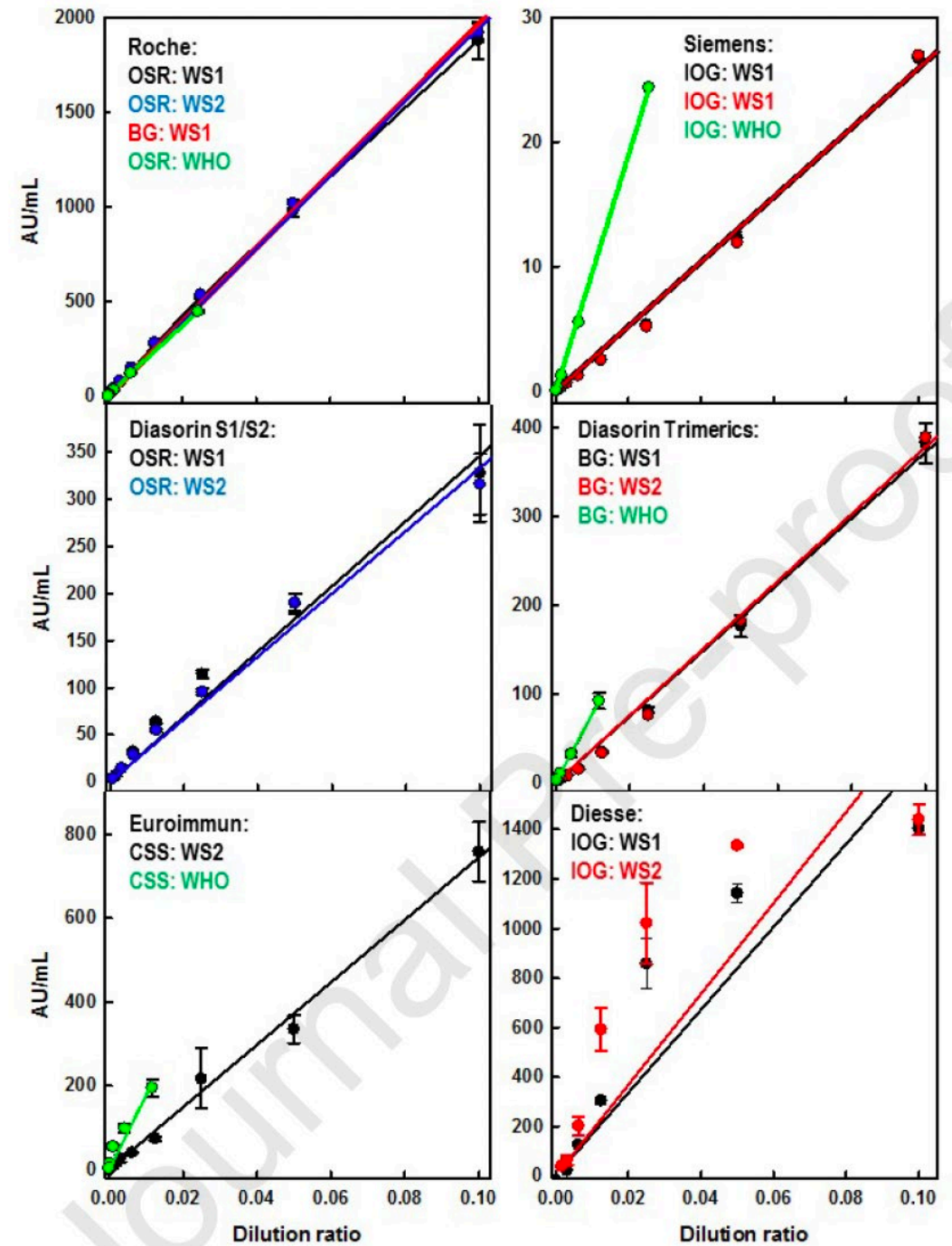
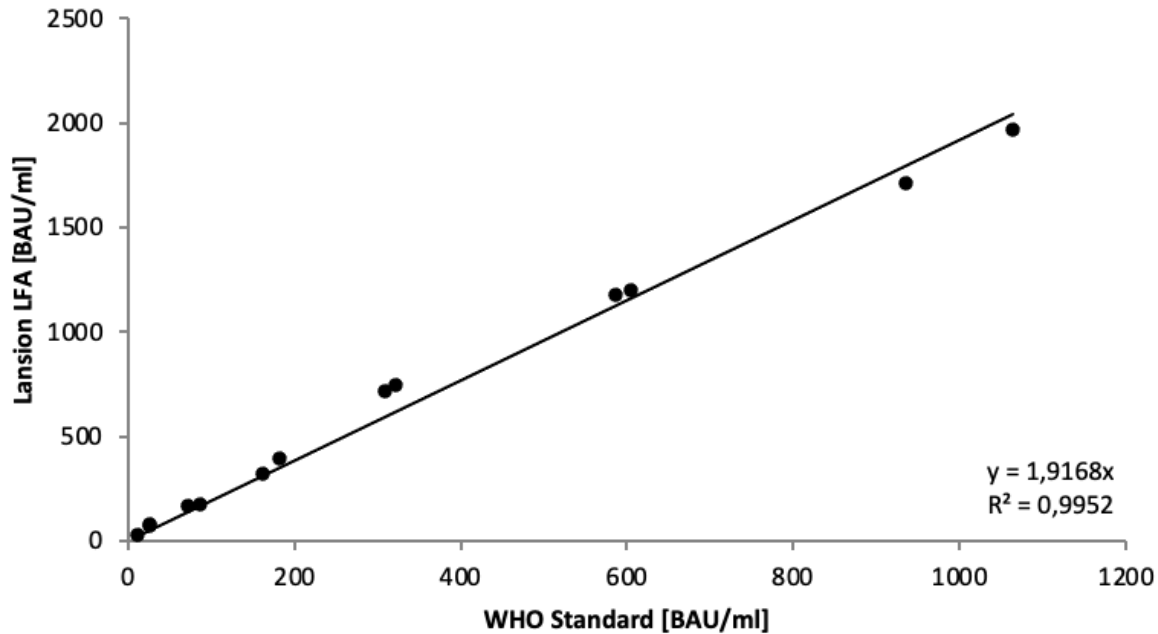


Die Kalibration

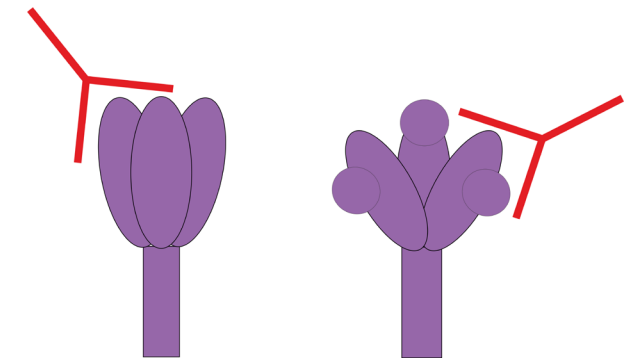
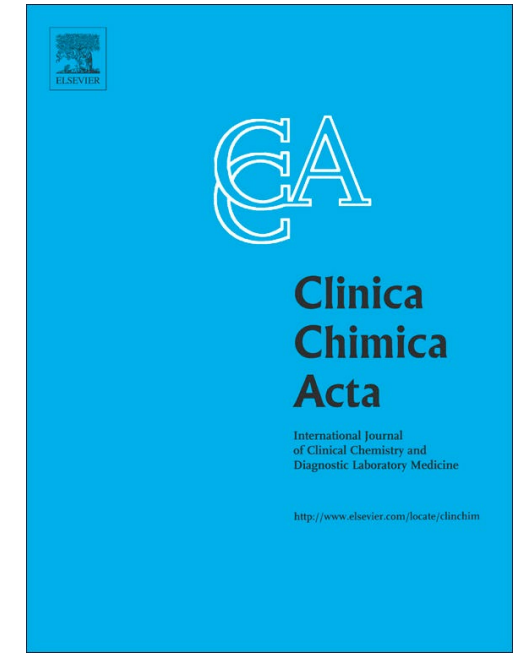
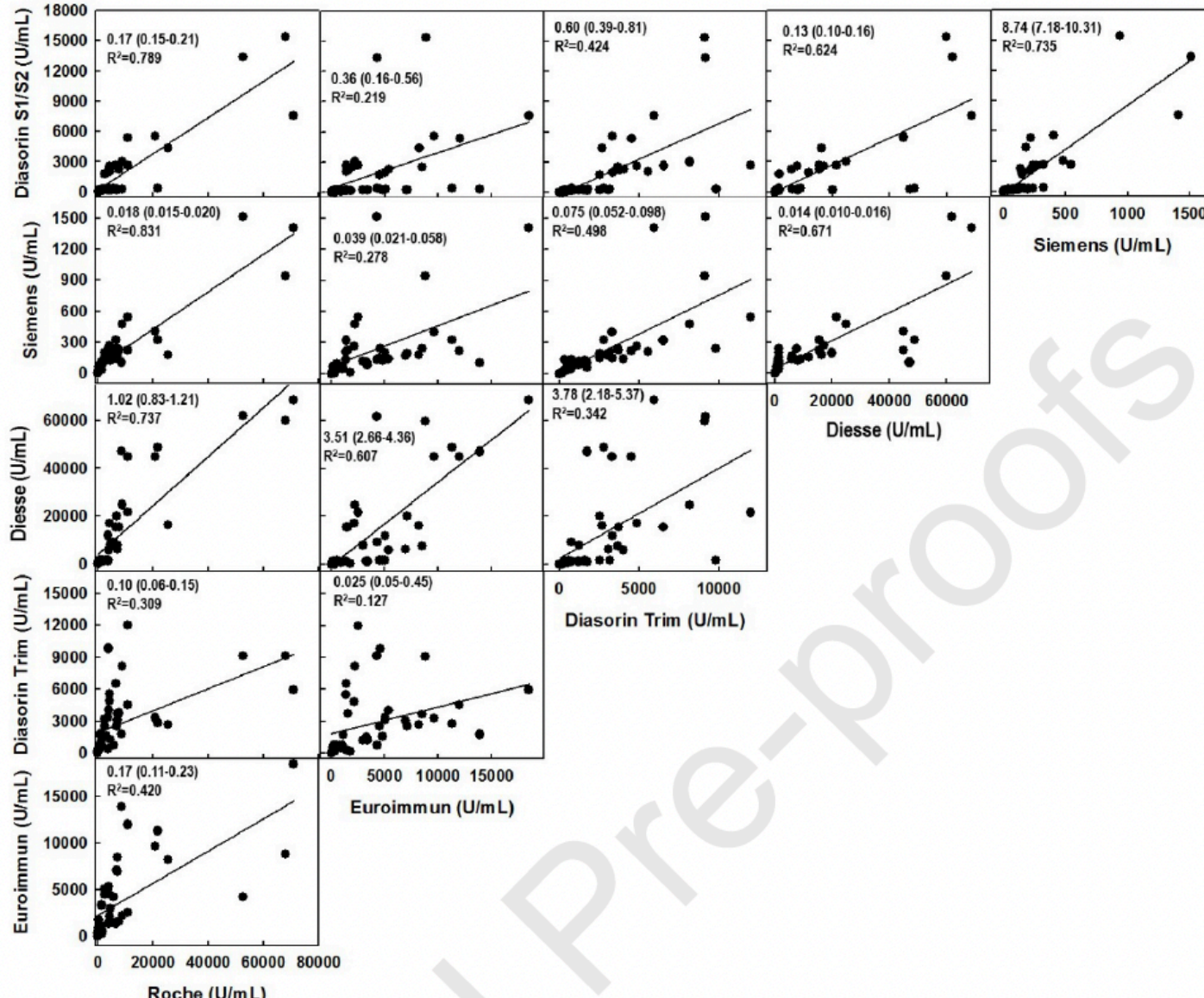
WHO-Standard November 2020



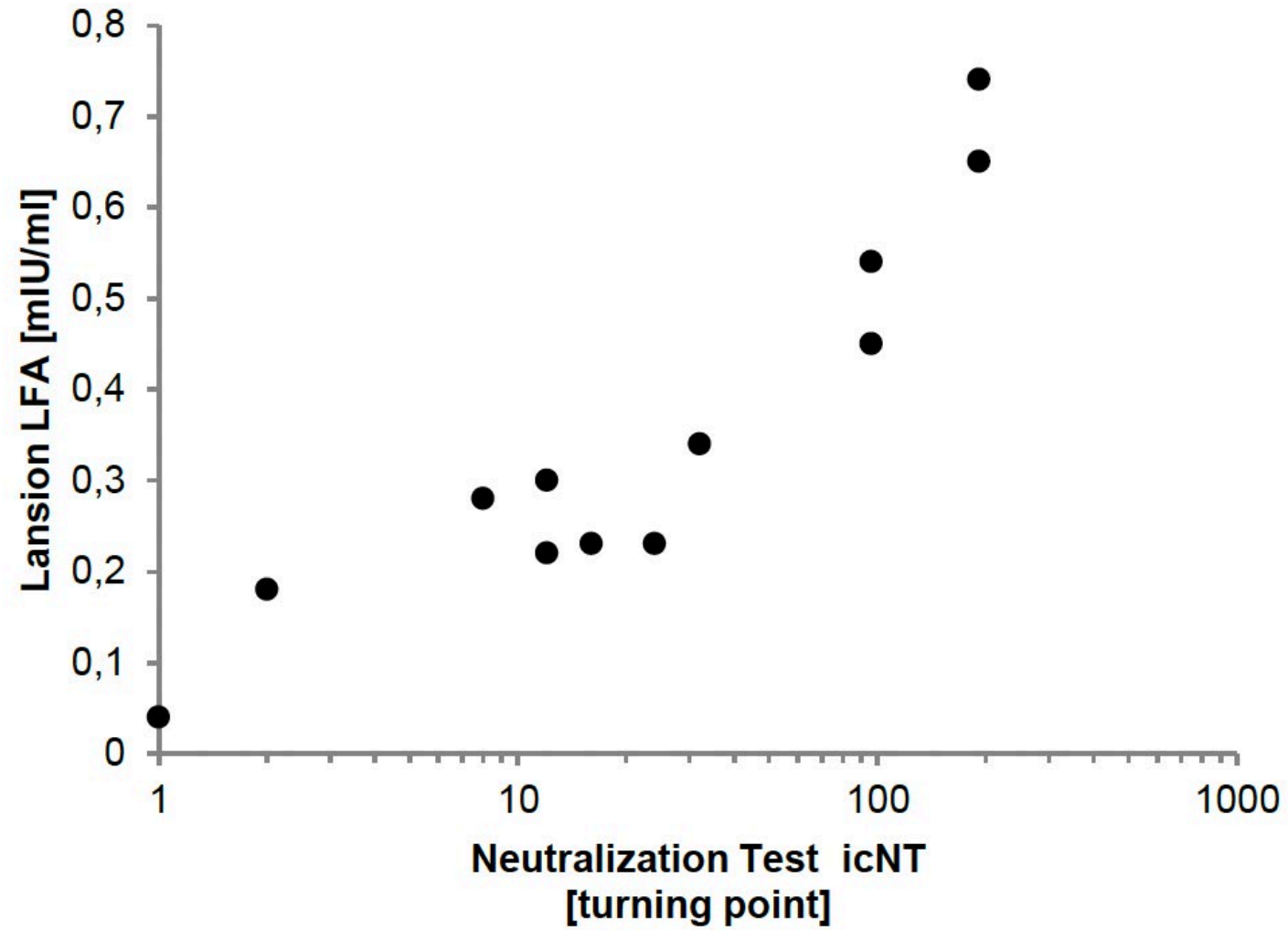
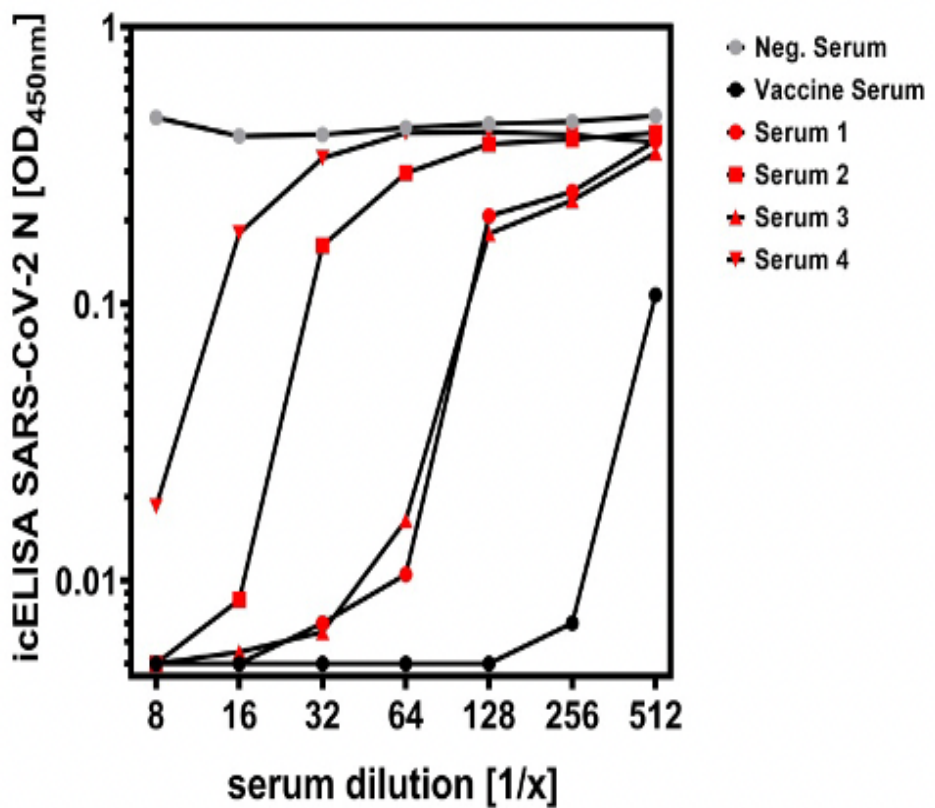
WHO/BS.2020.2403 Establishment of the WHO International Standard and Reference Panel for anti-SARS-CoV-2 antibody



Harmonization of six quantitative SARS-CoV-2 serological assays using sera of vaccinated subjects



Korrelation VitaLab Schnelltest / Virusneutralisationstest



Ärzteschaft

Laborärzte empfehlen Antikörpertests vor Auffrischungsimpfungen

Dienstag, 31. August 2021

[!\[\]\(eb70ac3e793aea24b49d2cd9f7b0b269_img.jpg\)](#) [!\[\]\(cf2d3def06148aad259395138469f3b5_img.jpg\)](#) [!\[\]\(eec11f9af64eeaaff99306922eb5fb74_img.jpg\)](#) [!\[\]\(0322092668818b01c7e3bb972fc4979c_img.jpg\)](#) [!\[\]\(46a9fb590ea2e27723ca374f87df32ba_img.jpg\)](#) [!\[\]\(be2355cc4d441ed35aa051192ae10fcd_img.jpg\)](#) [!\[\]\(aa623ba0445c6c167eca388b9d8f0bd6_img.jpg\)](#) [!\[\]\(1298dd0b511cc3a7c238c34c29d1c397_img.jpg\)](#) [Newsletter abonnieren](#) [Zur Startseite](#)

„Unter einem Wert von 21.8 Binding Antibody Units (BAU) gehen wir davon aus, dass die getestete Person keinen Immunschutz gegen das Coronavirus

Über 1.000 BAU sei eine Drittimpfung unnötig.

„Zwischen 21.8 BAU und 1.000 BA besteht ein Graubereich, der wissenschaftlich noch nicht genau ausgelotet ist.

Arbeitsbereiche von Covid 19 serologischen Assays

	Messbereich BAU/ml	Cut off BAU/ml	Probe
Roche COBAS	0,4-250 (2.500)	0,8	Serum IgG,M,A
Siemens Atellica	1-3.150 (15.750)	1	Serum IgG
Euroimmun	3,2-348	35,1	Serum IgG
Diasorin LIASON	9,9-1.040	15	Serum IgG

VitaLab	7-1.400 (3.000)	20	Blut* IgG,M,A
----------------	-----------------	----	---------------

*Zwei Optionen: 20 ul Vollblut
 100 ul Serum

VitaLab® Bedienungsanleitung



VitaLab



TRIPART
TITAN

VitaBook

Test Items:

Category	Test Item	Specimen Type	Sample Volume	Reaction Time	Measuring Range
COVID-19	Antigen	Nasal Swab	100 µl	15 min	-
	IgM/IgG	S/P/C	20µl	15 min	-
	NAb	S/P/C	20µl	15 min	-
Diabetes	HbA1c	WB	5 µl	15 min	3-14 %
Inflammation	CRP	S	5 µl	3 min	0.5-200 µg/mL
	PCT	S/P	100 µl	15 min	0.1-50 ng/mL
	SAA	S/P/WB	5 µl	3 min	2-300 µg/mL
	SAA/CRP	S/P/WB	5	5 min	SAA: 2-300 µg/mL CRP: 0.5-200 µg/mL
	PCT/CRP	S/P	5 µl	3 min	PCT: 0.1-50 ng/mL CRP: 0.5-200 µg/mL
	IL-6	S	100 µl	15 min	5-2000 pg/mL
	IgG4	S/P	100 µl	15 min	0.055-3.3 g/L
Cardiac	cTnl	S/P	100 µl	10 min	0.05-40 ng/mL
	CK-MB	S/P	100 µl	10 min	0.2-80 ng/mL
	Myo	S/P	100 µl	10 min	20-500 ng/mL
	cTnl/CK-MB/Myo	S	100 µl	10 min	cTnl: 0.05-40 ng/mL CK-MB: 0.2-80 ng/mL Myo: 20-500 ng/mL
	NT-proBNP	S/P	100 µl	15 min	50-25000 pg/mL
	D-Dimer	P	100 µl	10 min	0.1-10 µg/mL
	H-FABP	S/P	100 µl	5 min	1-200 ng/mL
	BNP	S/P	100 µl	15 min	5-5000 pg/mL
	Lp-PLA2	S/P	100 µl	10 min	10-1000 ng/mL
	Hormone	TSH	S/P	100 µl	15 min
TT3		S/P	100 µl	15 min	0.5-10 nmol/mL
TT4		S/P	100 µl	10 min	10-350 nmol/mL
25-OH-VD3		S/P	100 µl	10 min	11-43 ng/mL
25-OH-VD		S/P/WB	S/P: 5 µl WB: 10 µl	10 min	5.0-70 ng/mL
β-HCG		S/P	50 µl	15 min	2.0-20000 mIU/mL
AMH		S	100 µl	10 min	0.1-50 ng/mL
LH		S	100 µl	10 min	1.02-200 mIU/mL
FSH		S	100 µl	10 min	1-200 mIU/mL
PRL		S	100 µl	15 min	200-4000 µIU/mL
Gastric Function	PG I/PG II	S	100 µl	10 min	PGI: 10-160 ng/mL
					PGII: 6.25-100 ng/mL
Tumor	PSA	S/P	100 µl	10 min	0.1-100 ng/mL

S: Serum | P: Plasma | WB: Whole blood | C: Capillary blood

Covid-19

HbA1c

Inflammation

Cardiac

Hormone

PSA

