Impact van COVID-19 op auto-immuun en ontsteking gerelateerde huidaandoeningen.

Hok Bing Thio, Dermatologie, ErasmusMC, Rotterdam, NL.
Webinar 16 november 2020
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Photo illustration by Getty.

Disclaimer & Disclosure

The views as expressed in these slides are those of Hok Bing Thio.

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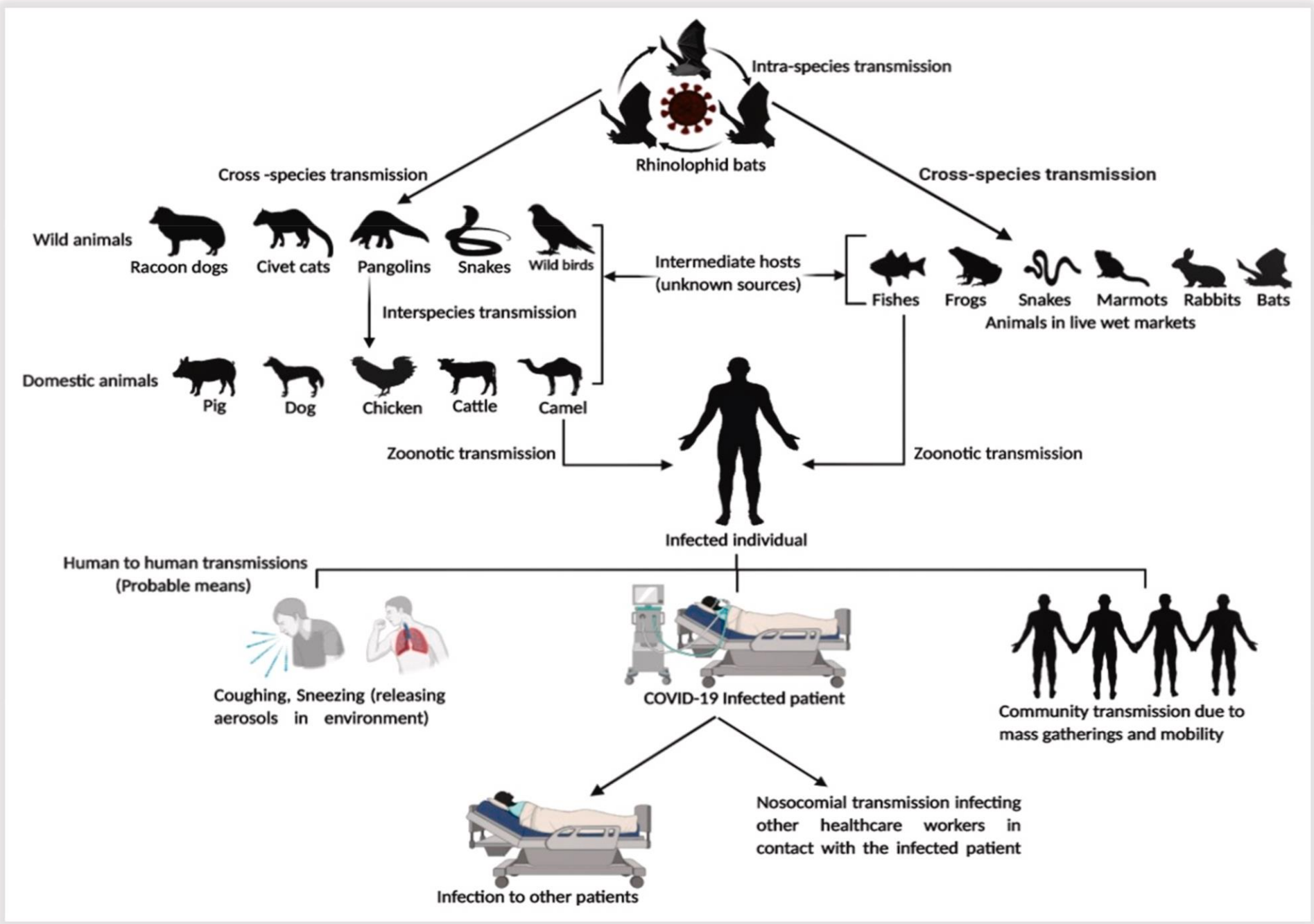
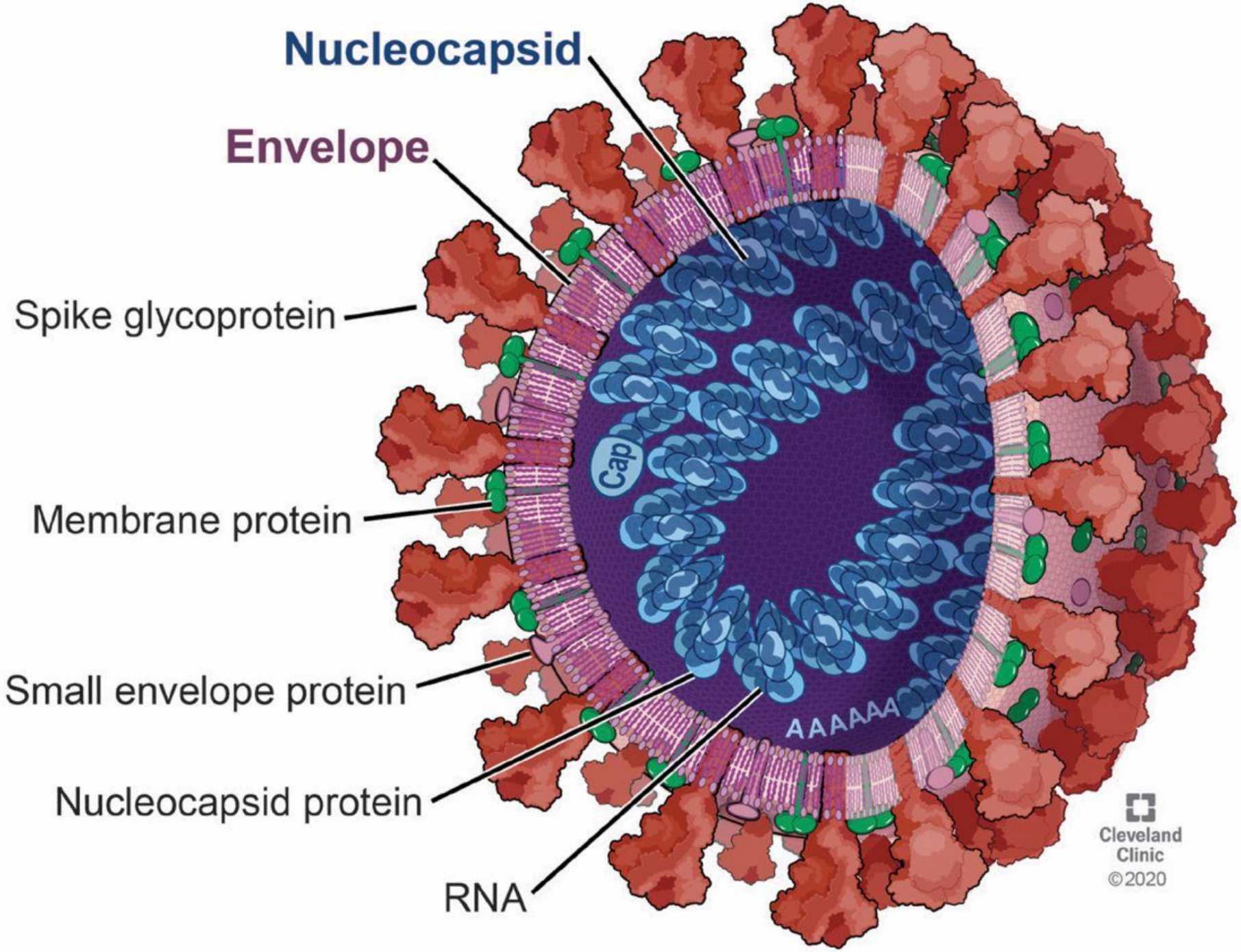
Hok Bing Thio has been a consultant and invited speaker for Dr. Reddy, Biogen, Janssen, AbbVie, Celgene, Biologix, Galderma, Leopharma, Lilly, Almirall, TEVA, UCB and Novartis. He has received educational and research grants from AbbVie, Celgene, Janssen and Biogen.



Ankit Kumar Dubey, Aakansha Singh, Shardendu Prakash, Manoj Kumar, Ashok K Singh,
Race to arsenal COVID-19 therapeutics: Current alarming status and future directions,
Chemico-Biological Interactions, Volume 332, 2020, 109298, ISSN 0009-2797,

https://www.biomaatschappij.nl/auto-immuunziekte/


Nucleocapsid
Envelope
Spike glycoprotein
Membrane protein
Small envelope protein
Nucleocapsid protein
RNA
Cap
AAAAAA
Cleveland Clinic
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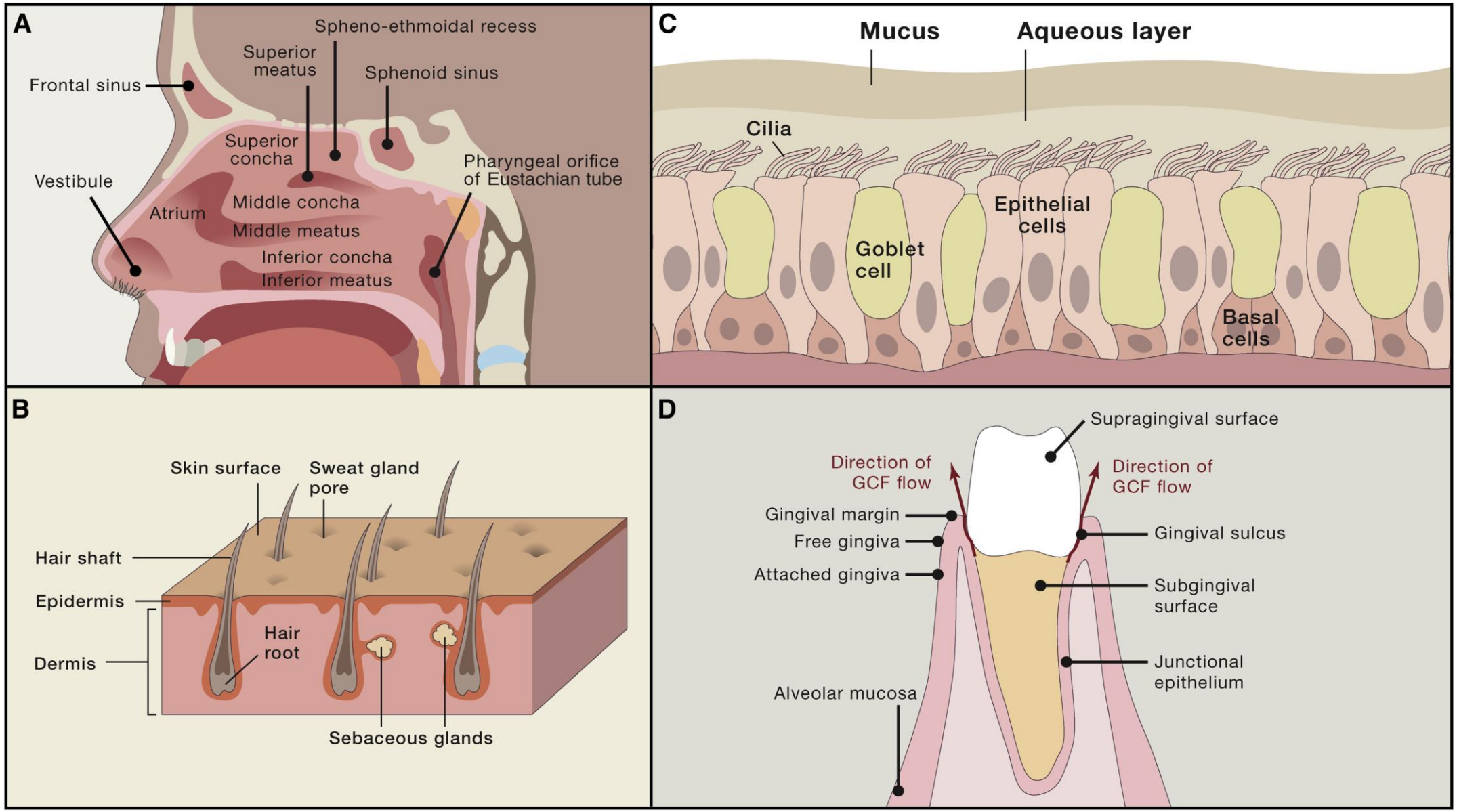
ENTRY



Diana M. Proctor, David A. Relman, Cell Host & Microbe, Volume 21, Issue 4,2017,Pages 421-432,

SARS-CoV-2 kan de smaak aantasten door binding aan angiotensin-converting enzyme-2 receptoren die aanwezig zijn op de tong en elders in de mondholte.
Smaakverlies treedt ongeveer in 50% van de COVID-19 patienten.
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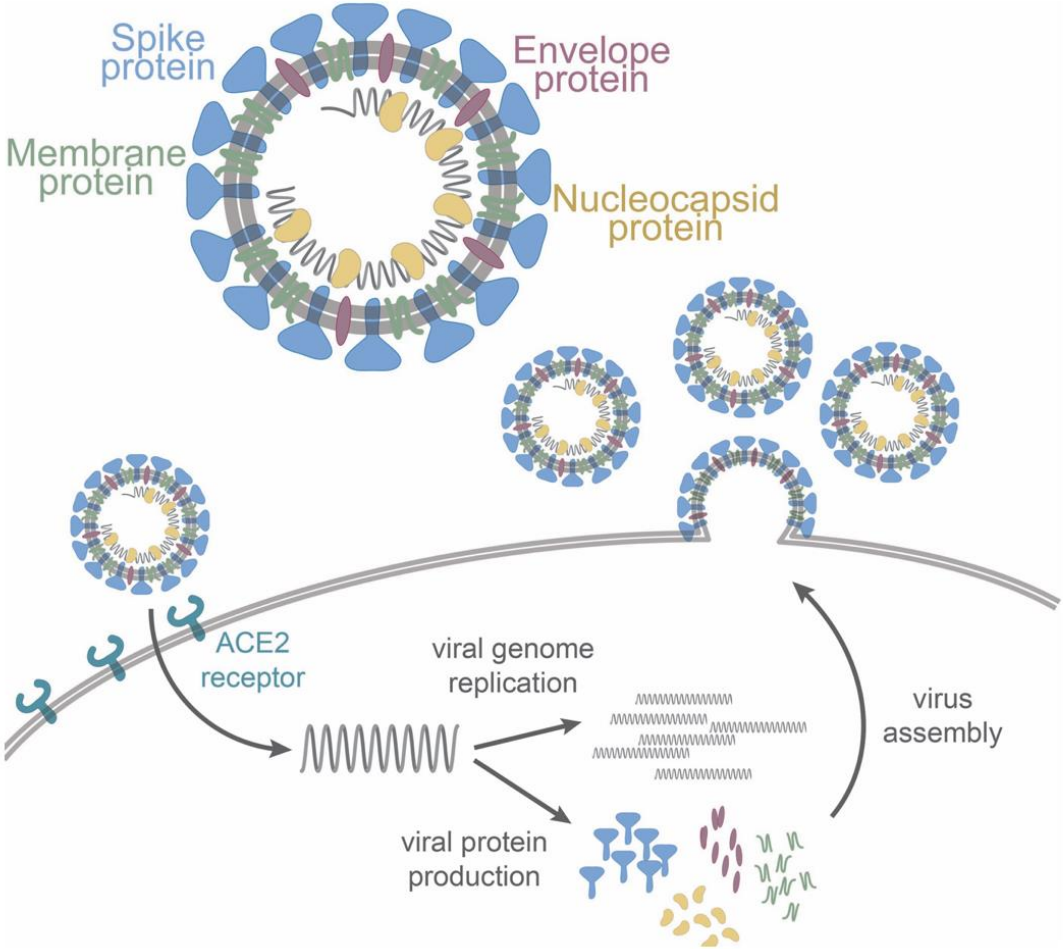
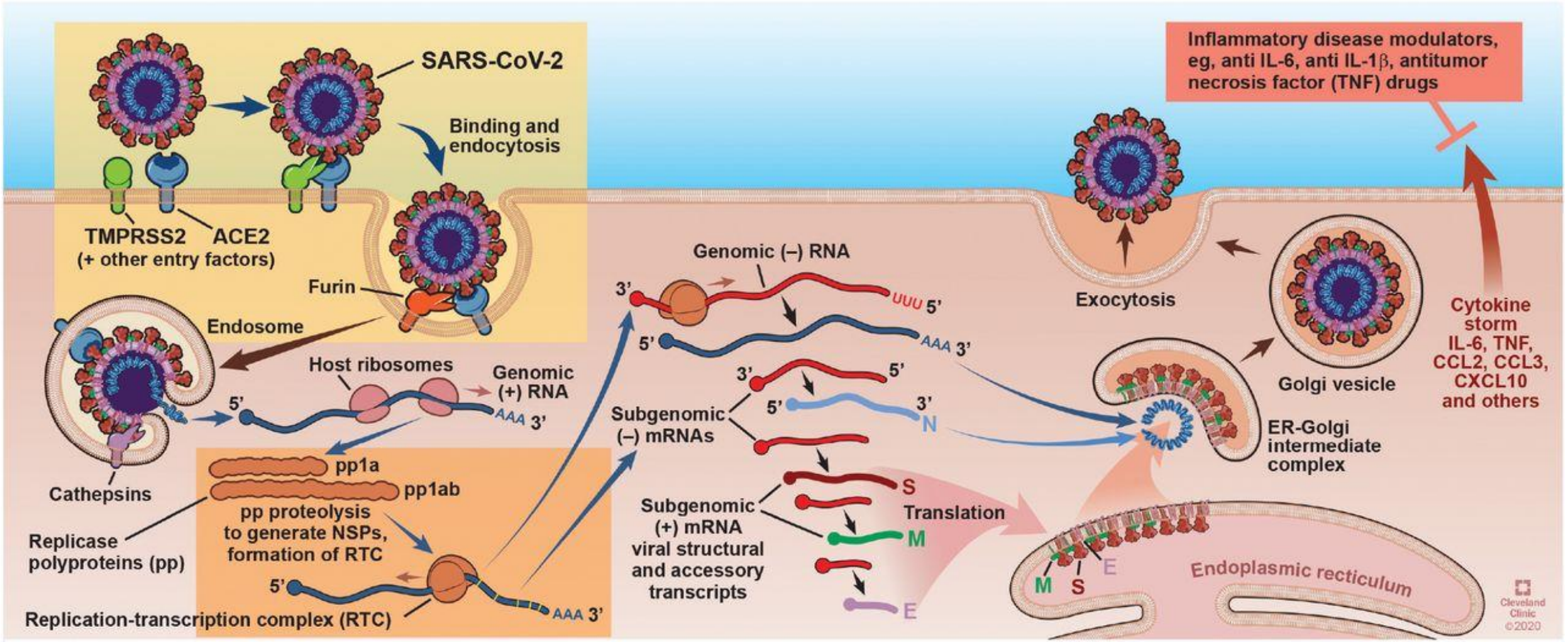


Dr. Muhammad Aziz of the University of Toledo, in Ohio, told Reuters Health by email,

https://www.maxperutzlabs.ac.at/vcdi/covid-19-qas



Blockade of entry

Antispike antibody
- Convalescent serum
- Vaccine against spike

Endocytosis inhibitors
- Chloroquine
- Hydroxychloroquine

Inhibition of S1/S2 cleavage
- Anti-TMPRSS2 agents

Blockade of replication

Interference with RdRP (replicase)
- Remdesivir (GS-5734)
- EIDD-1931

Viral protease inhibitor

Ribavirin

Boosters of innate immune response

MDA5

IFN-I, IFN-III

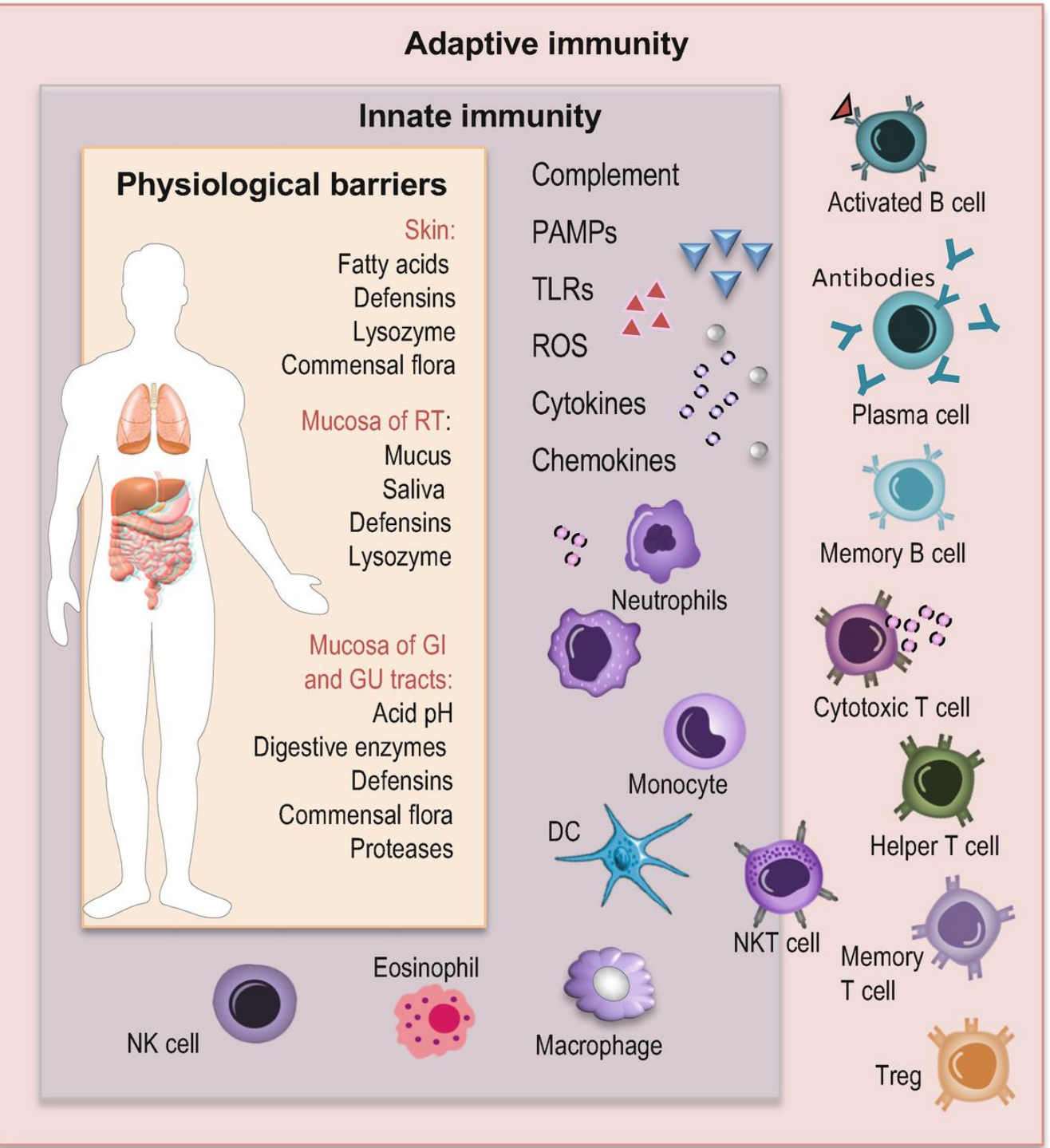
ISG effectors
- OAS, PKR

Enhancers of antiviral innate immunity

Early treatment with IFN or IFN inducers

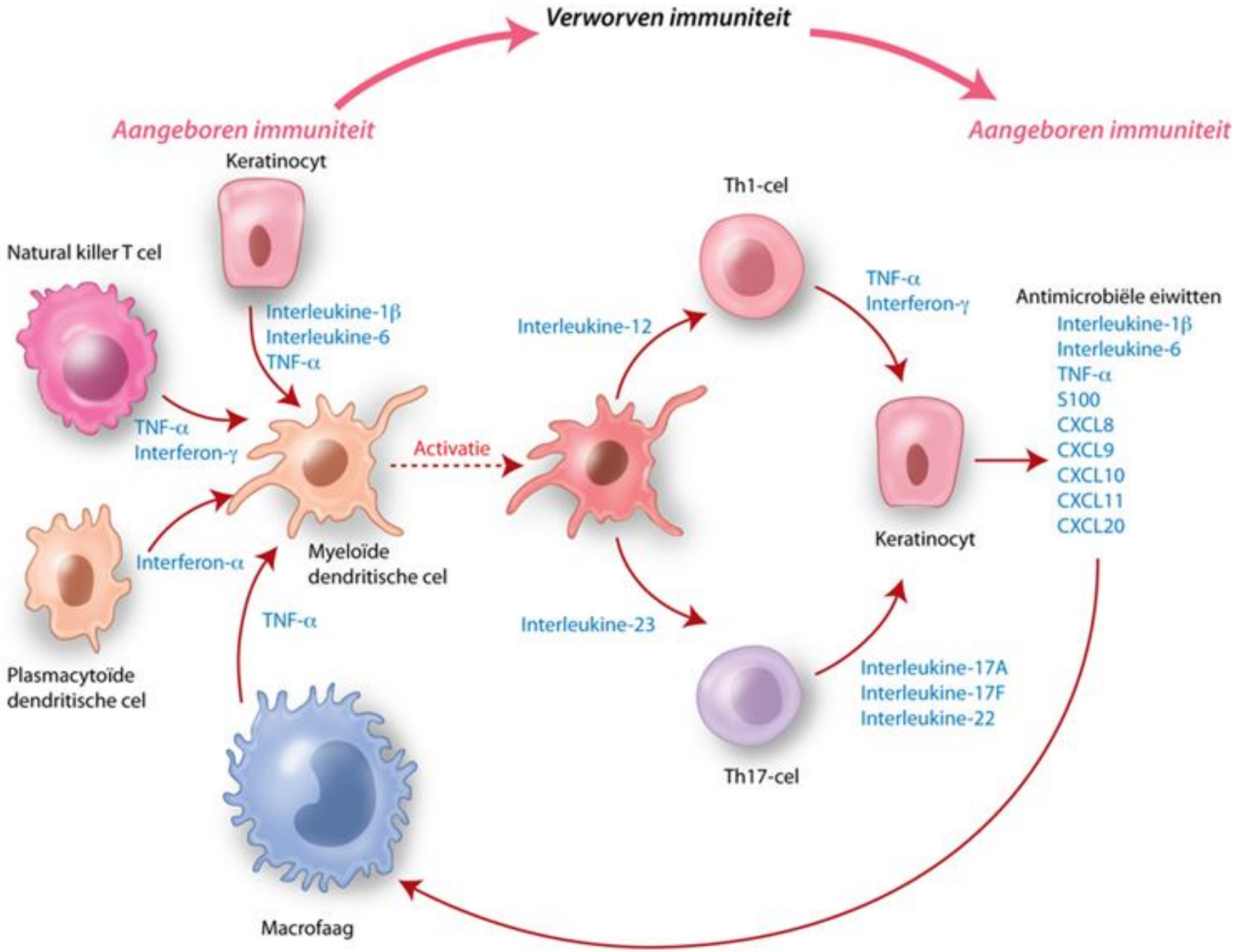
Blockade of IFN antagonists

COVID-19: Coronavirus replication, pathogenesis, and therapeutic strategies
Cornelia C. Bergmann, PhD and Robert H. Silverman, PhD
Cleveland Clinic Journal of Medicine June 2020, 87 (6) 321-327;



IMMUUN SYSTEM

Müller L., Di Benedetto S., Pawelec G. (2019) The Immune System and Its Dysregulation with Aging. In: Harris J., Korolchuk V. (eds) Biochemistry and Cell Biology of Ageing: Part II Clinical Science. Subcellular Biochemistry, vol 91. Springer, Singapore

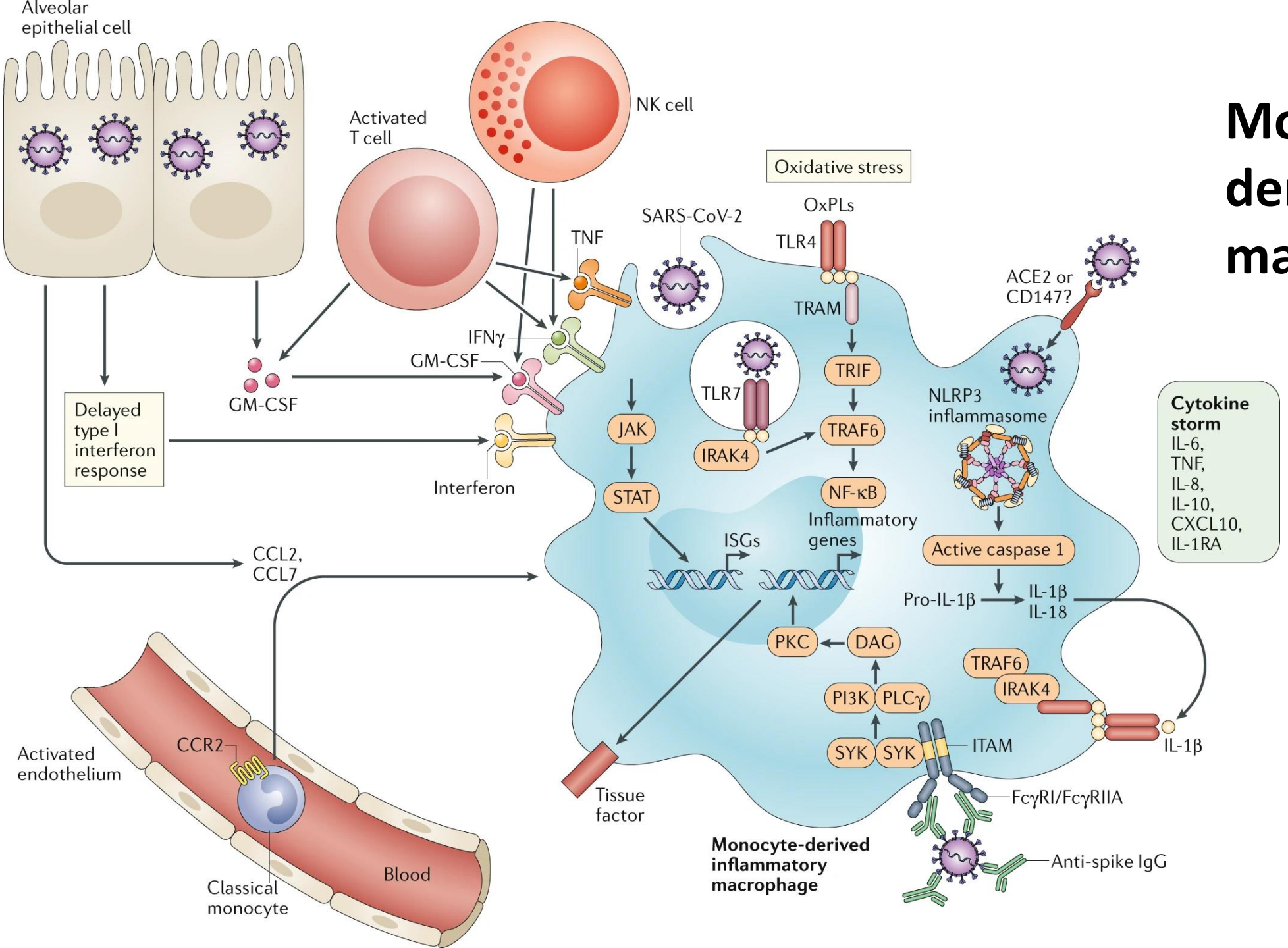


https://richtlijnendatabase.nl/richtlijn/psoriasis/pathofysiologie_en_therapie_bij_psoriasis.html

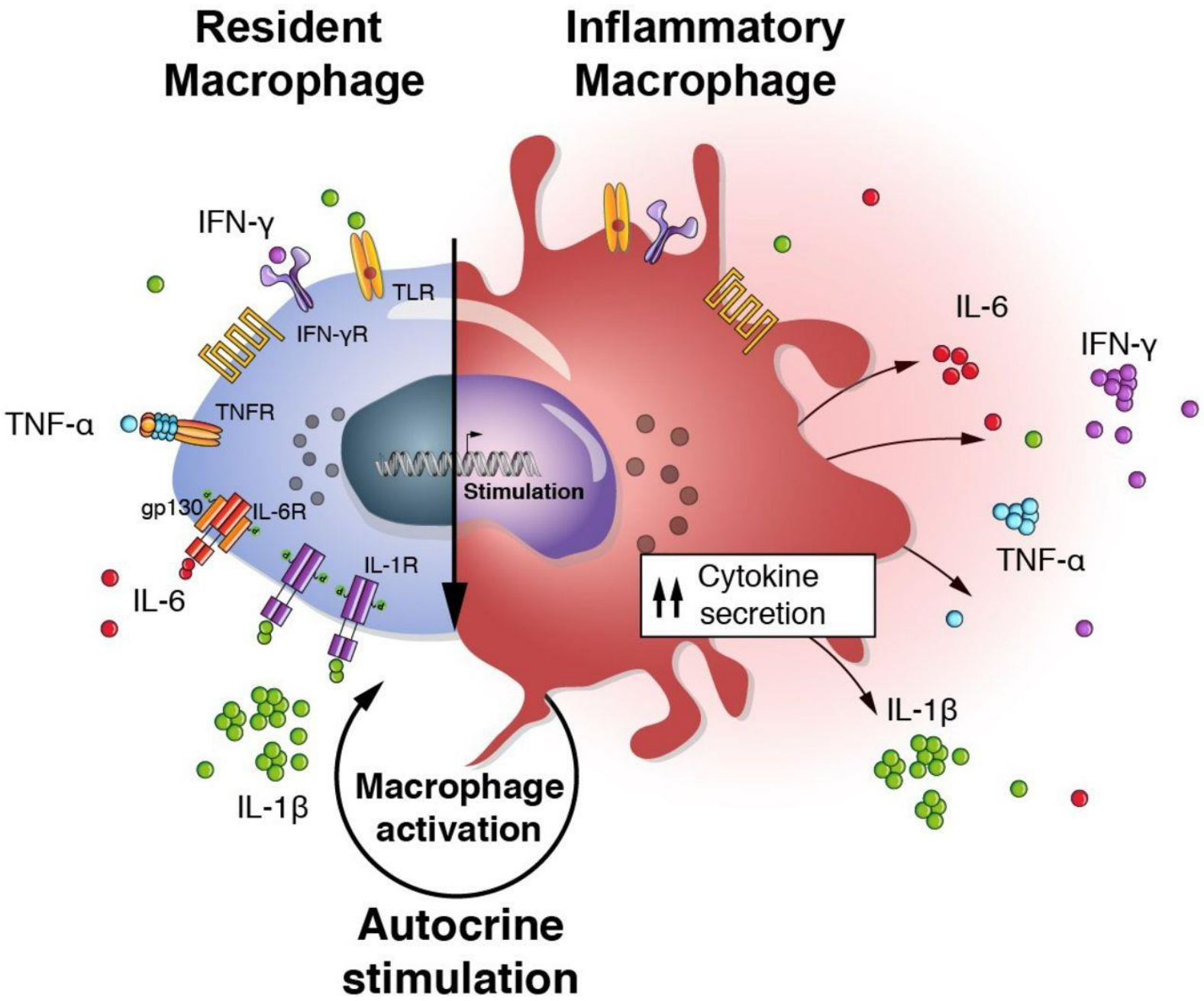
	aangeboren immuniteit	verworven immuniteit
specificiteit	patroonherkenning	antilichamen, T-celreceptoren
werking	direct	inductie
cellen	monocyten, macrofagen, granulocyten,	T- en B-lymfocyten naturalkillercellen, dendritische cellen
geheugen	nee	ja
initiatie van de respons	ter plaatse	secundaire lymfoïde organen
effectormechanismen	fagocytose en intracellulaire doding	antilichamen, cytotoxische T-lymfocyten, helper-T-lymfocyten (Th1, Th2, Th17, Tfh en Treg)
effectoreiwitten	complement, defensinen, cytokinen,	antilichamen, cytokinen, perforine, granzymen andere eiwitten

Hageman, A. 9 vragen over vaccineren. nurs 26, 18–25 (2020). https://doi.org/10.1007/s41193-020-0150-9

Monocyte-derived macrophages

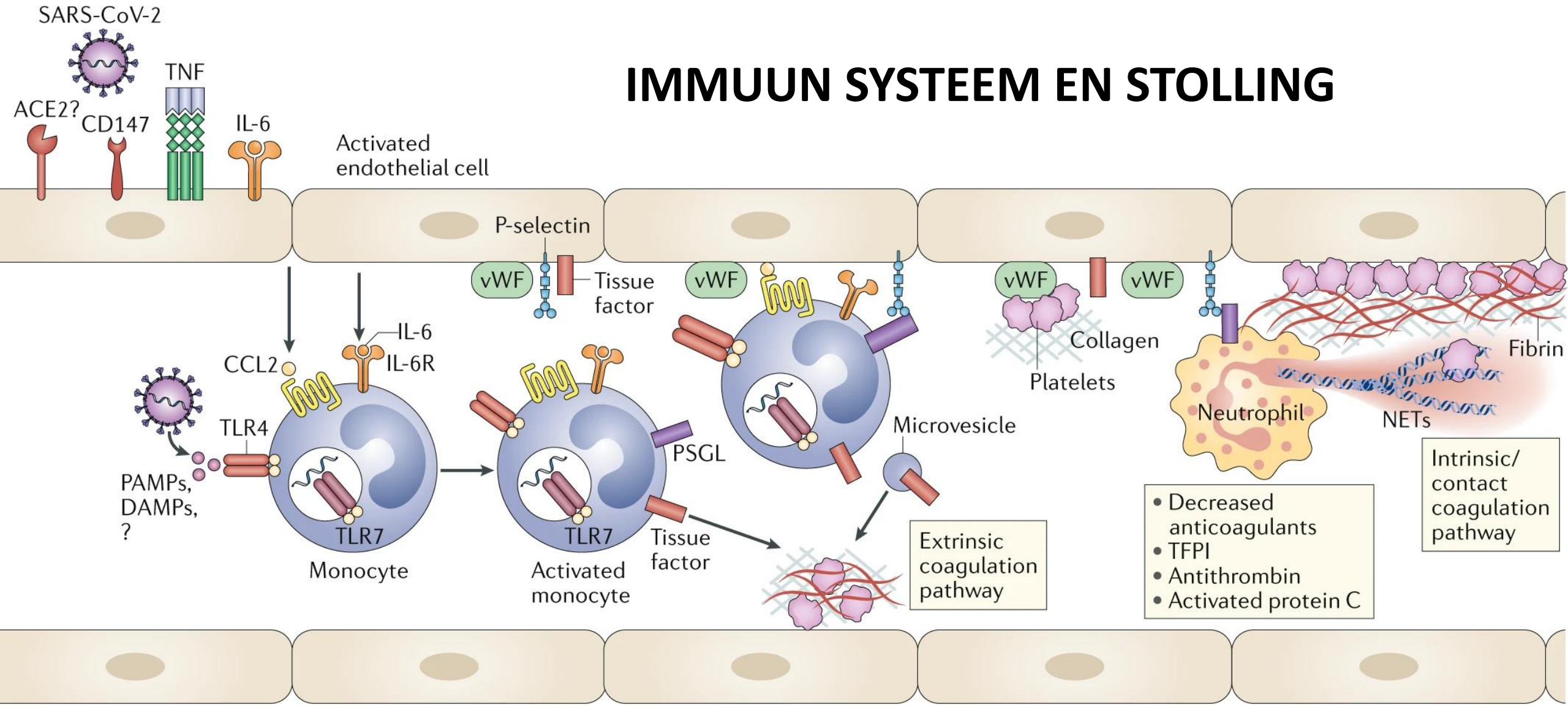


Merad, M., Martin, J.C. Pathological inflammation in patients with COVID-19: a key role for monocytes and macrophages. Nat Rev Immunol 20, 355–362 (2020). https://doi.org/10.1038/s41577-020-0331-4

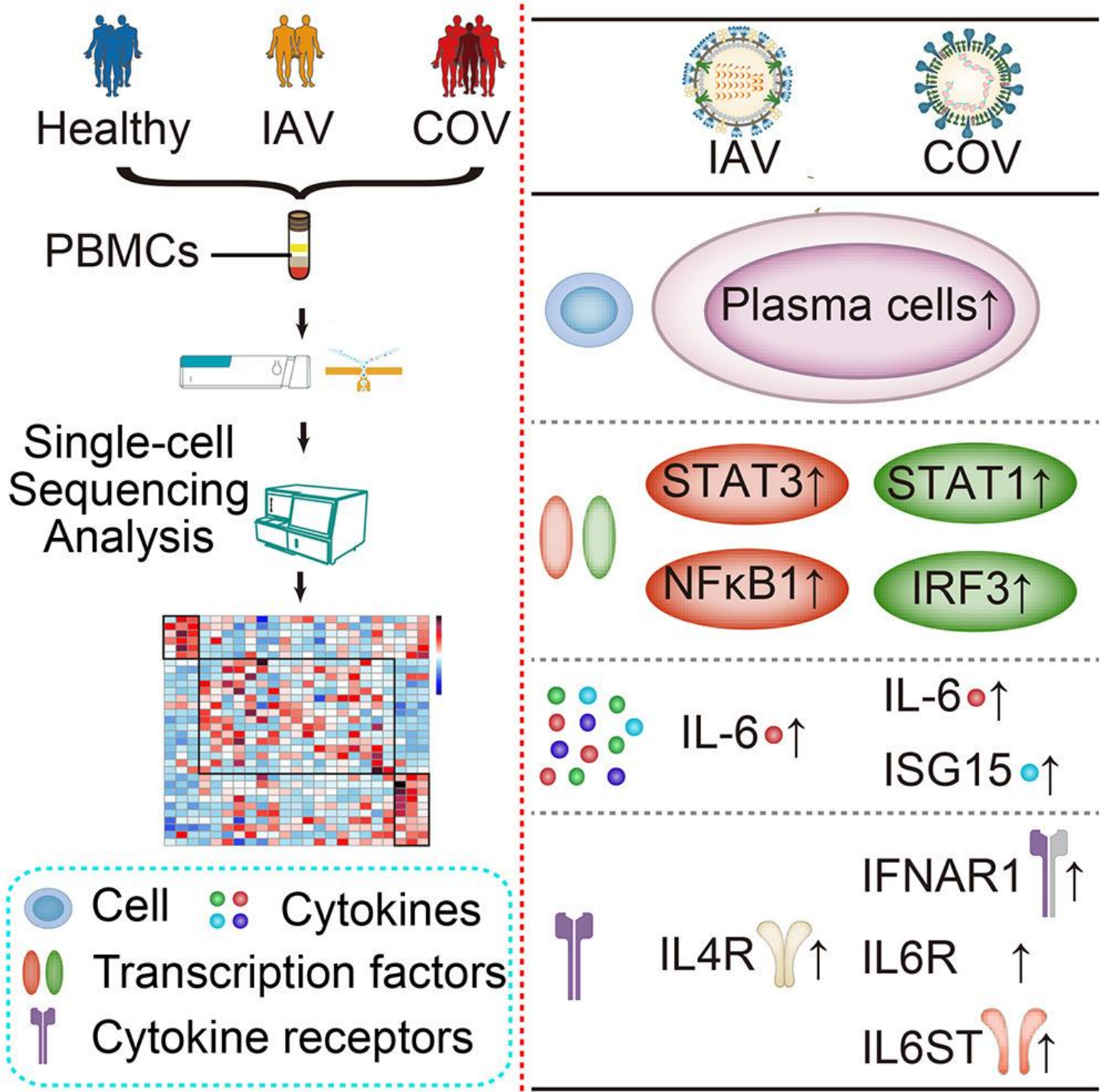


Addeo A, Obeid M, Friedlaender ACOVID-19 and lung cancer: risks, mechanisms and treatment interactionsJournal for ImmunoTherapy of Cancer 2020;8:e000892. doi: 10.1136/jitc-2020-000892

IMMUUN SYSTEEM EN STOLLING

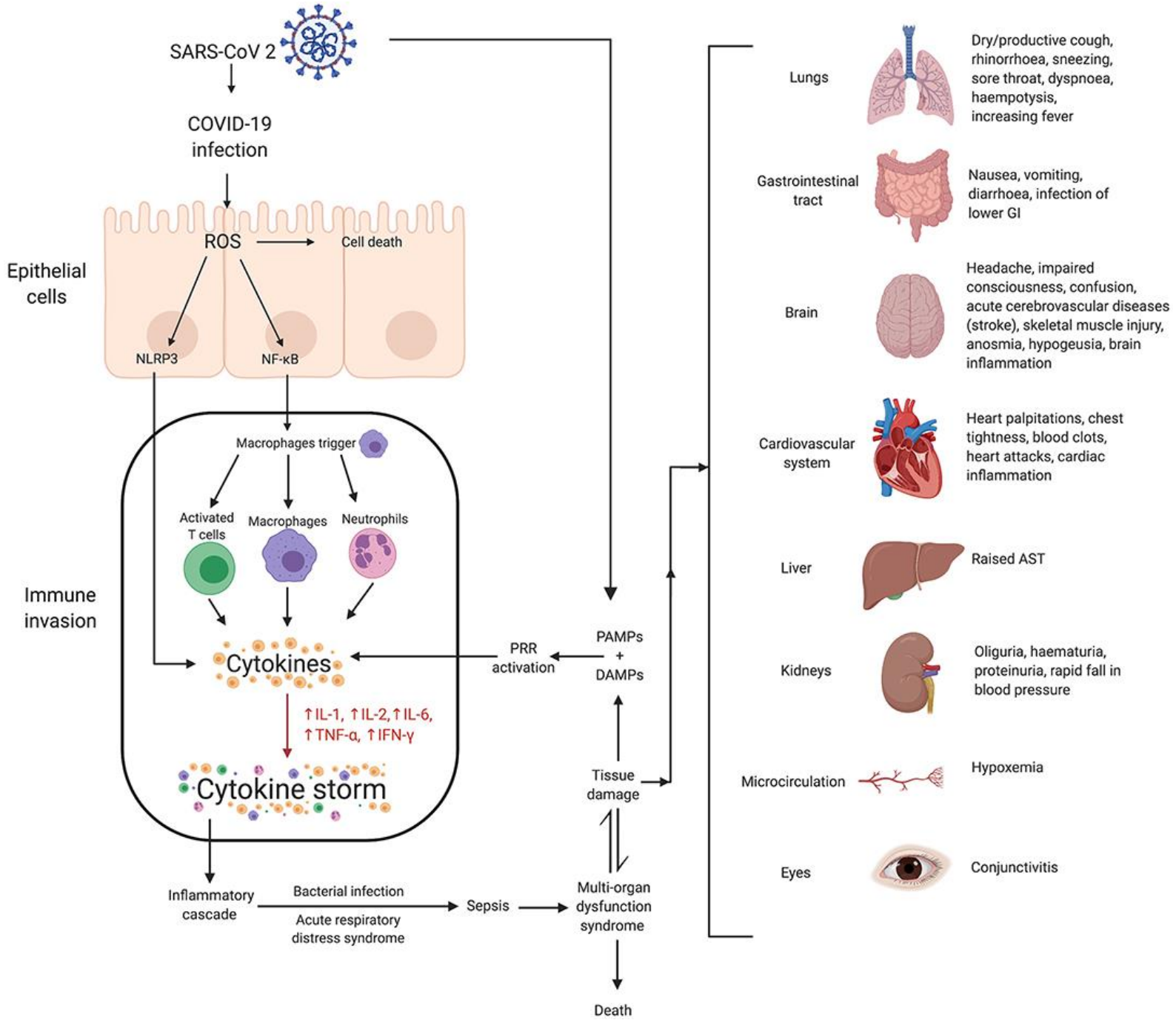


Merad, M., Martin, J.C. Pathological inflammation in patients with COVID-19: a key role for monocytes and macrophages. Nat Rev Immunol 20, 355–362 (2020). https://doi.org/10.1038/s41577-020-0331-4

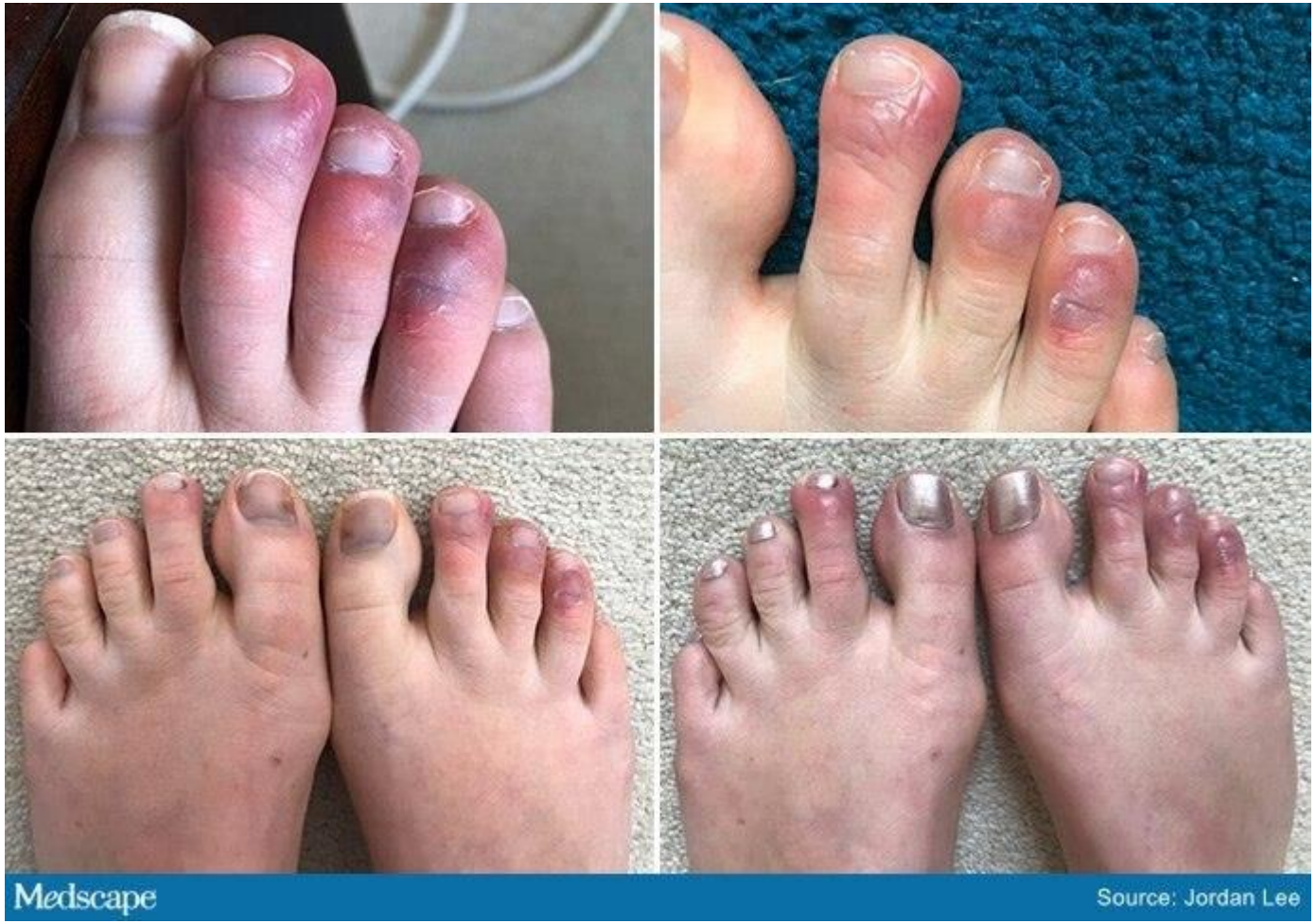


Influenza A virus (IAV) vs SARS-COV-2 (COV)

Single-cell sequencing of peripheral blood mononuclear cells reveals distinct immune response landscapes of COVID-19 and influenza patients. Linnan Zhu et al. Published:July 19,2020DOI:https://doi.org/10.1016/j.immuni.2020.07.009

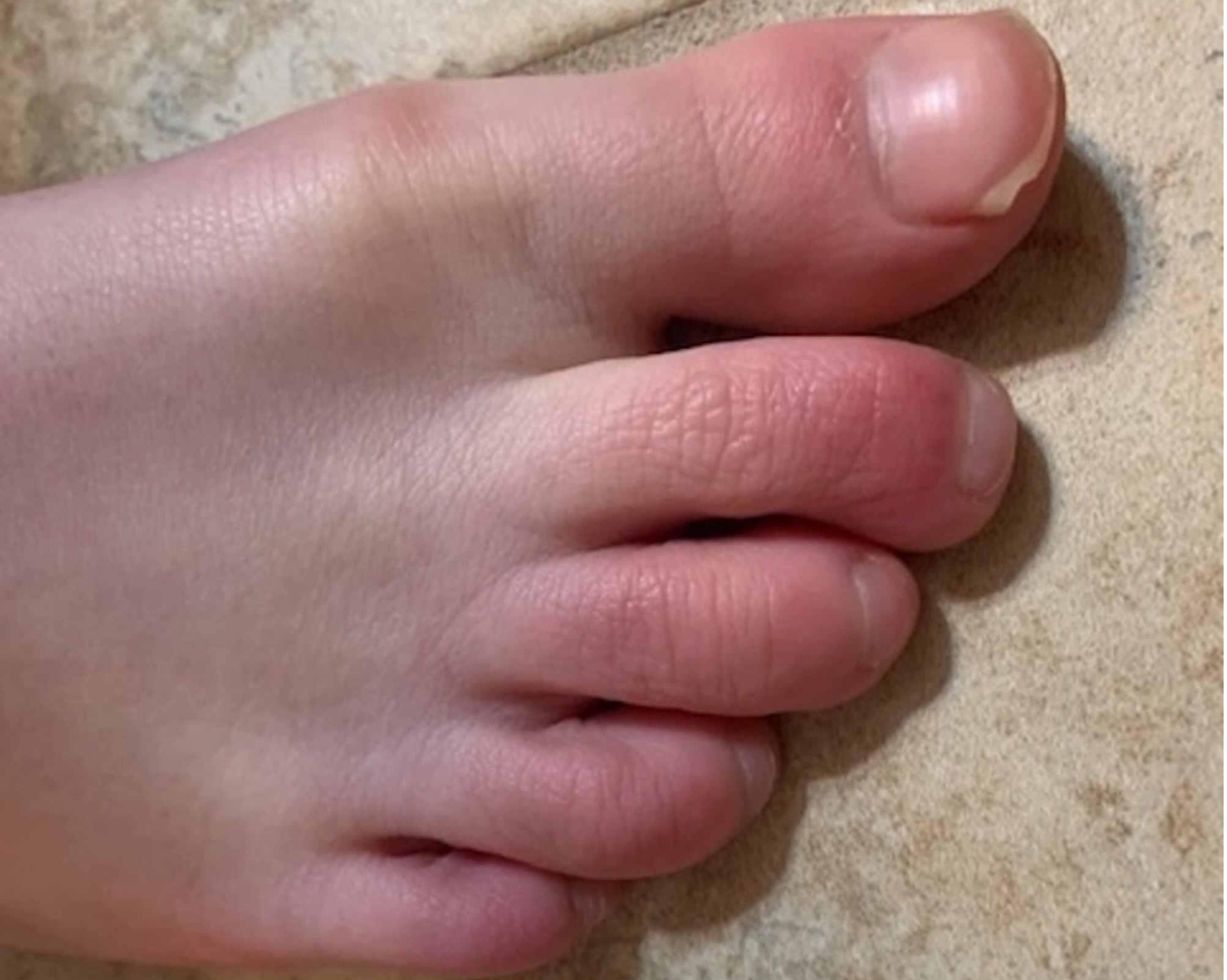


Front. Immunol., 10 July 2020 | https://doi.org/10.3389/fimmu.2020.01648
Cytokine Storm in COVID-19—Immunopathological Mechanisms, Clinical Considerations, and Therapeutic Approaches: The REPROGRAM Consortium Position Paper
Sonu Bhaskar et al.

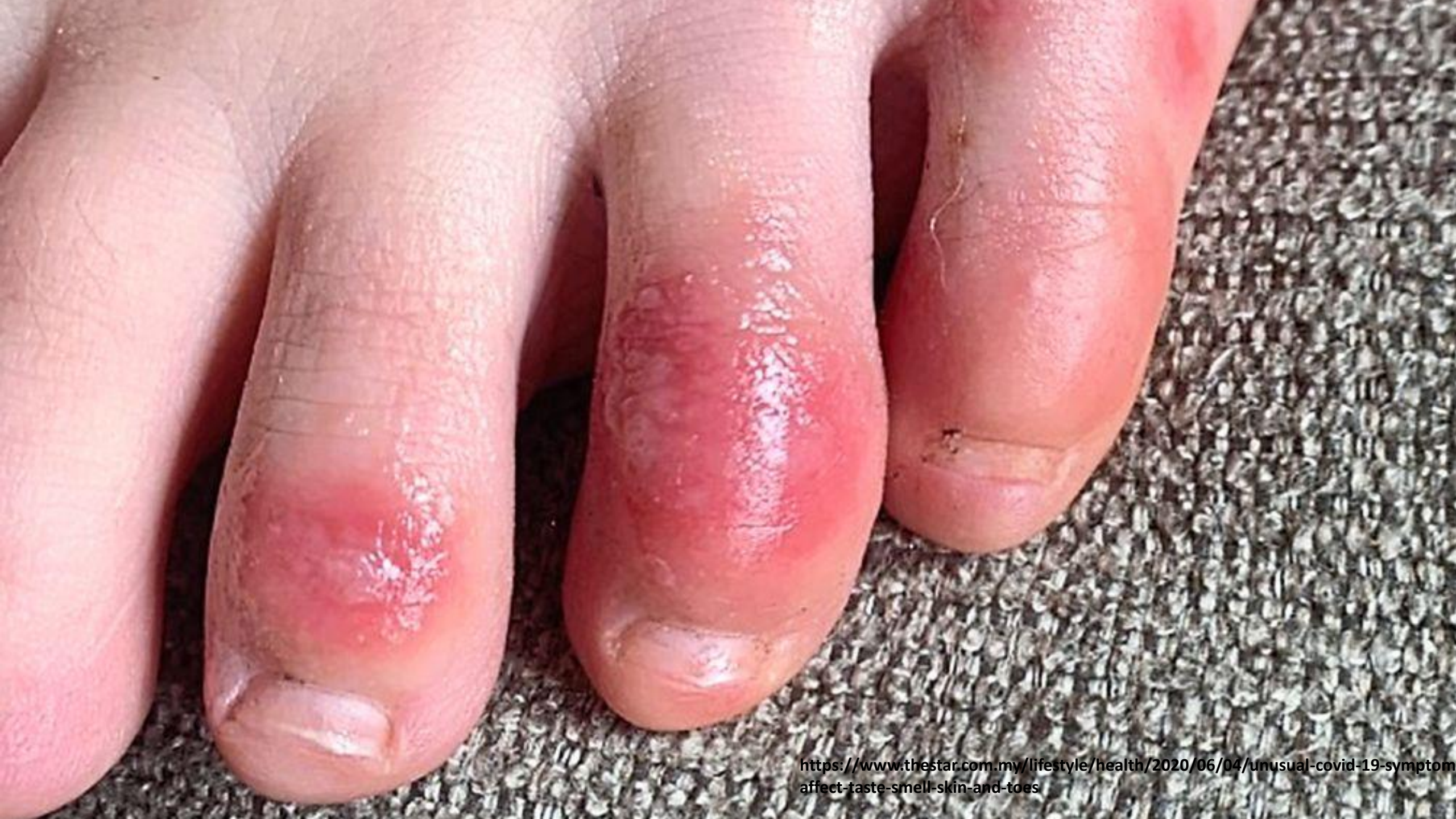


COVID-19 en de huid

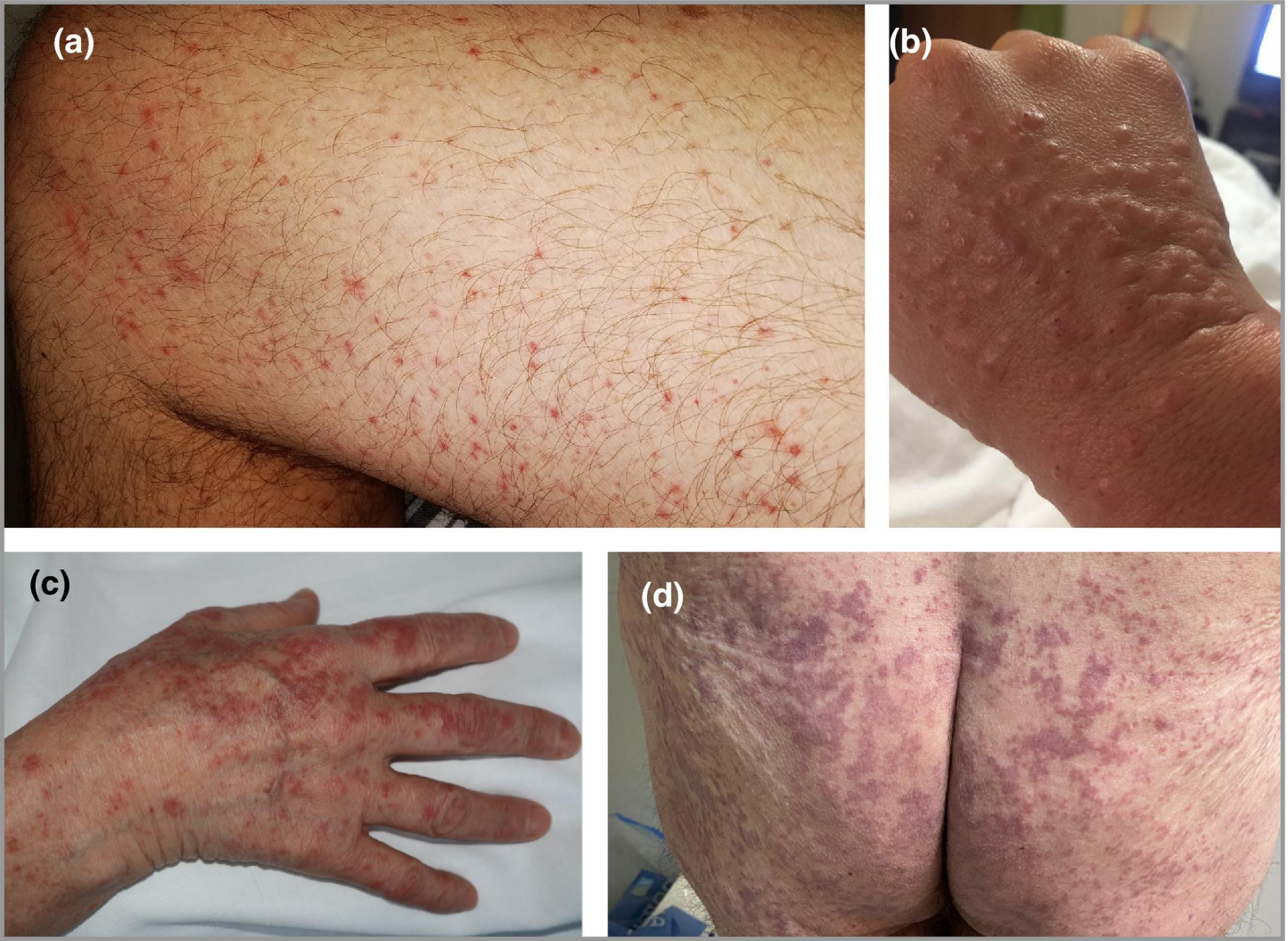
Dermatologic Changes With COVID-19: What We Know and Don't Know
Interviewer: Graeme M. Lipper, MD; Interviewee: Lindy P. Fox, MD
DISCLOSURES May 13, 2020



Mohan V, Lind R (July 17, 2020) Chilblains in COVID-19 Infection. Cureus 12(7): e9245. doi:10.7759/cureus.9245

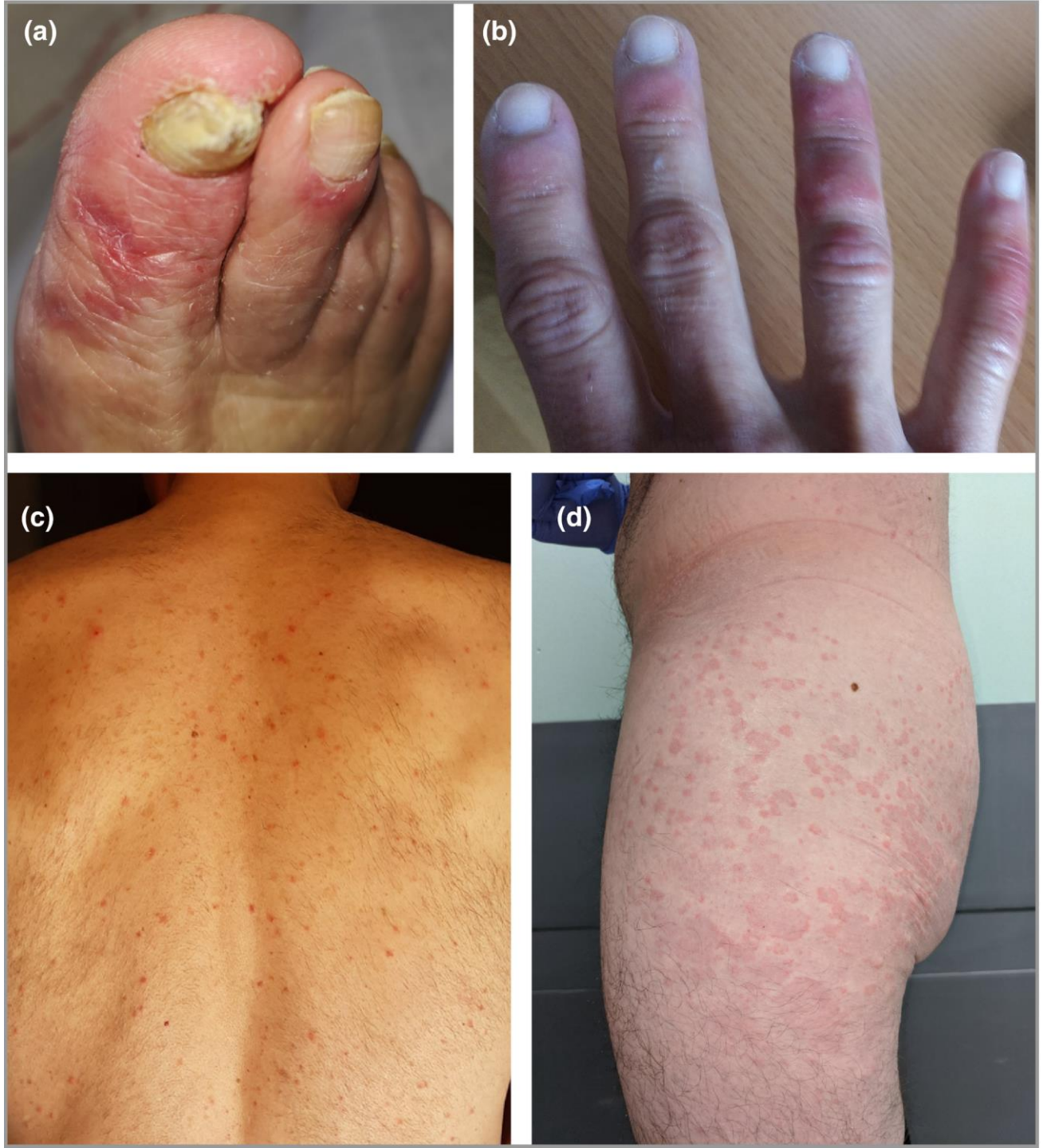


https://www.thestar.com.my/lifestyle/health/2020/06/04/unusual-covid-19-symptom
affect-taste-smell-skin-and-toes



All of the patients shown had confirmed COVID -19.
(a) Maculopapular eruption. Some of the lesions are perifollicular.
(b) Acral infiltrated papules (pseudovesicular).
(c) Acral papules (erythema multiforme like).
(d) Livedoid areas.

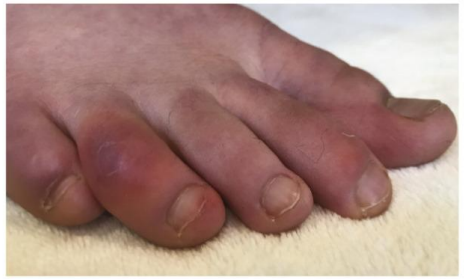
Galván Casas, C., et al. (2020), Classification of the cutaneous manifestations of COVID -19: a rapid prospective nationwide consensus study in Spain with 375 cases. Br J Dermatol. doi:10.1111/bjd.19163

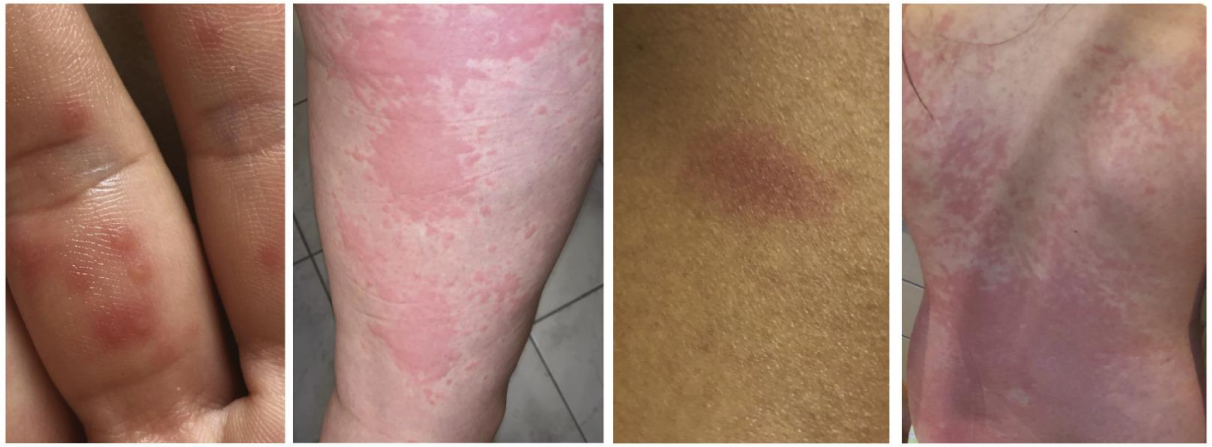


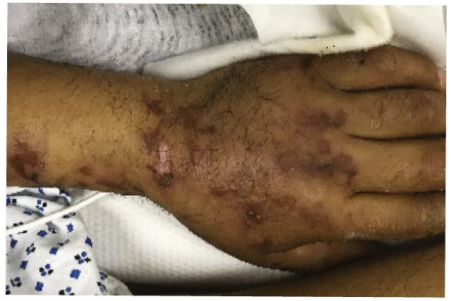
All of the patients shown had confirmed COVID -19.
(a, b) Acral areas of erythema–oedema with vesicles or pustules (pseudo-chilblain).
(c) Monomorphic (i.e. at same stages) disseminated vesicles.
(d) Urticarial lesions.

Galván Casas, C., Català, A., Carretero Hernández, G., Rodríguez-Jiménez, P., Fernández-Nieto, D., Rodríguez-Villa Lario, A., Navarro Fernández, I., Ruiz-Villaverde, R., Falkenhain-López, D., Llamas Velasco, M., García-Gavín, J., Baniandrés, O., González-Cruz, C., Morillas-Lahuerta, V., Cubiró, X., Figueras Nart, I., Selda-Enriquez, G., Romaní, J., Fustà-Novell, X., Melian-Olivera, A., Roncero Riesco, M., Burgos-Blasco, P., Sola Ortigosa, J., Feito Rodriguez, M. and García-Doval, I. (2020), Classification of the cutaneous manifestations of COVID -19: a rapid prospective nationwide consensus study in Spain with 375 cases. Br J Dermatol. doi:10.1111/bjd.19163

Severity of COVID-19*







Pernio

- Feet (84%) and hands (32%)
- Pain/burning (71%) and pruritus (36%)
- After other COVID-19 symptoms (49%)
- Fever (35%), cough (35%);19% asymptomatic
- 16% hospitalized

Vesicular/ Urticarial/ Macular Erythema/ Morbilliform

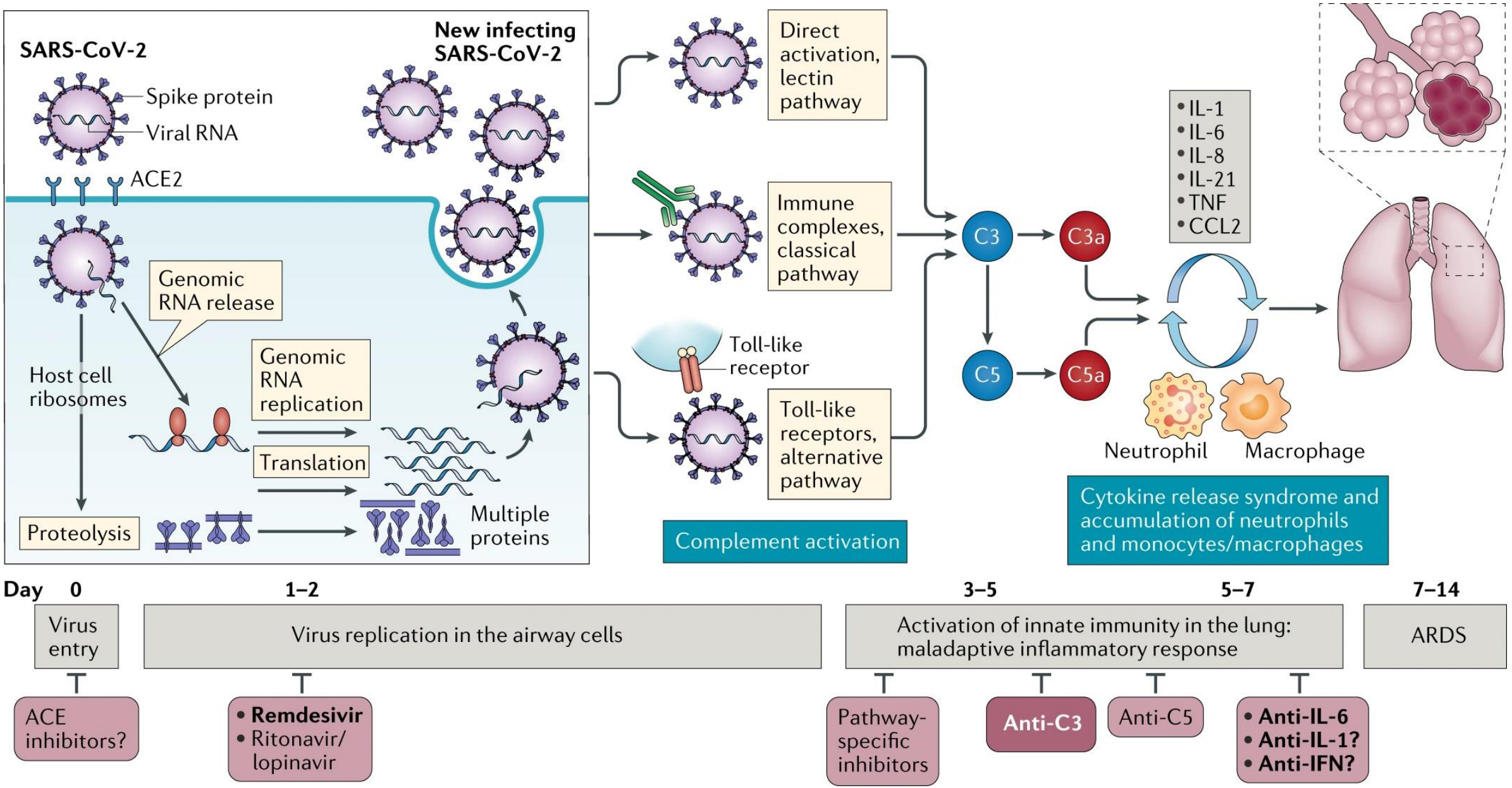
- Trunk and extremities
- Pruritus in 61-74%
- Typically after other COVID-19 symptoms (19%)
- Fever (65-74%), cough (52-66%), sore throat (39-50%), shortness of breath (28-45%)
- 22-45% hospitalized across groups

Retiform purpura

- Extremities and buttocks
- Often asymptomatic (73%)
- After other COVID -19 symptoms (91%)
- Fever (64%), cough (73%), and shortness of breath (73%)
- 100% hospitalized
- 82% with ARDS

*Severity calculated based on percentage of patients hospitalized for COVID-19

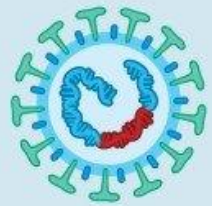
Esther E. Freeman, Devon E. McMahon, Jules B. Lipoff, Misha Rosenbach, Carrie Kovarik, Seemal R. Desai, Joanna Harp, Junko Takeshita, Lars E. French, Henry W. Lim, Bruce H. Thiers, George J. Hruza, Lindy P. Fox, The spectrum of COVID-19–associated dermatologic manifestations: An international registry of 716 patients from 31 countries,
Journal of the American Academy of Dermatology, Volume 83, Issue 4, 2020, Pages 1118-1129,



Risitano, A.M., Mastellos, D.C., Huber-Lang, M. et al. Complement as a target in COVID-19?. Nat Rev Immunol (2020). https://doi.org/10.1038/s41577-020-0320-7

Types of coronavirus vaccine approaches

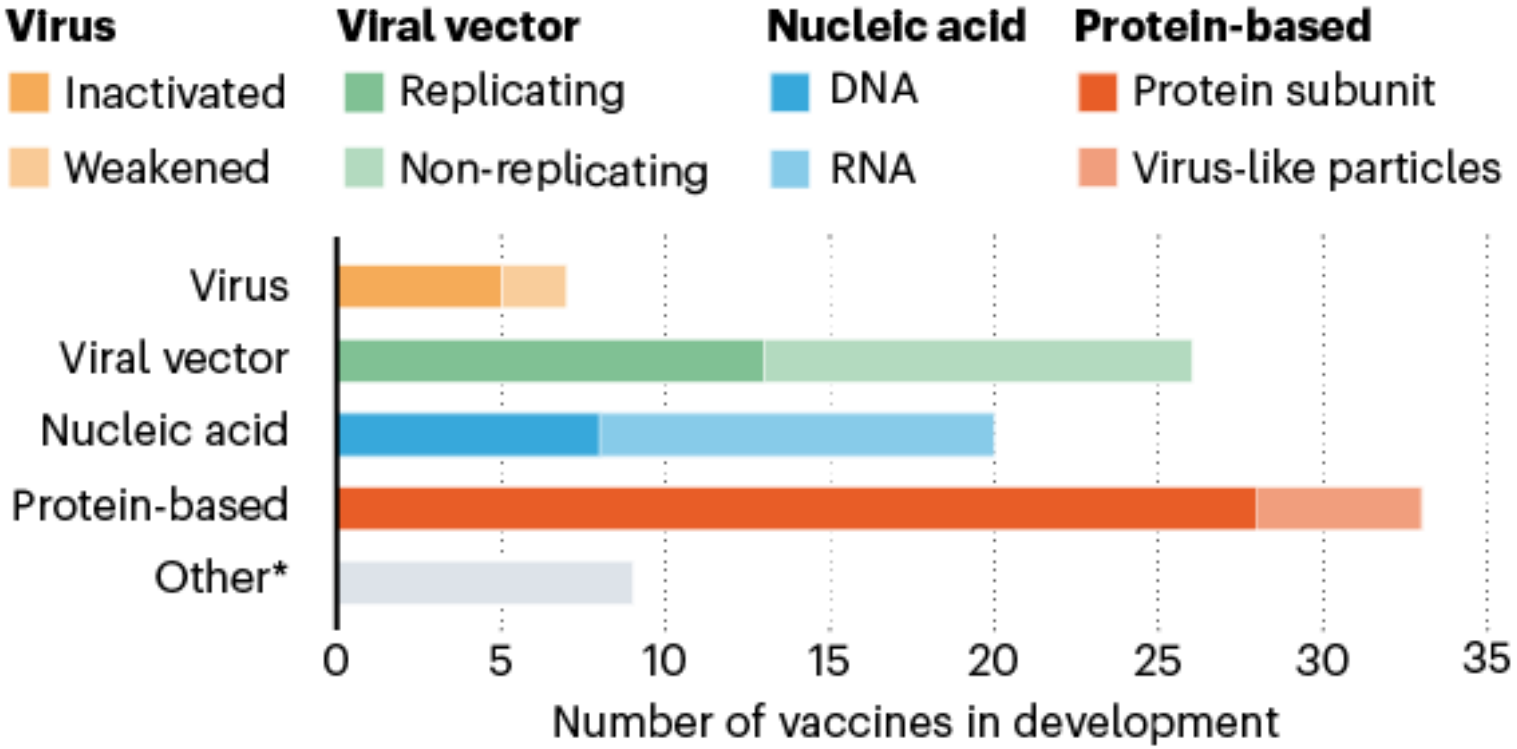
Scientists are casting a wide net to see what works best against the novel coronavirus.

Types of vaccines	DNA and RNA	Live attenuated	Inactivated	Subunit	Viral vector
					
How it works	This vaccine uses DNA or RNA molecules to teach the immune system to target key viral proteins.	This is a weakened version of the actual virus.	An inactivated vaccine uses the whole virus after it has been killed with heat or chemicals.	This vaccine uses a piece of a virus' surface to focus your immune system on a single target.	This approach takes a harmless virus and uses it to deliver viral genes to build immunity.
Advantages	Easy and quick to design.	Stimulates a robust immune response without causing serious disease.	Safe because the virus is already dead and is easy to make.	Focuses the immune response on the most important part of the virus for protection and cannot cause infection.	Live viruses tend to elicit stronger immune responses than dead viruses or subunit vaccines.
Disadvantages	Never been done before. There are no licensed DNA or RNA vaccines currently in use.	May not be safe for those with compromised immune systems.	Not as effective as a live virus. Some previous inactivated vaccines have made the disease worse; safety for the novel coronavirus needs to be shown in clinical trials.	May not stimulate a strong response, other chemicals may need to be added to boost long-term immunity.	Important to pick a viral vector that is truly safe. An immune response to the viral vector could make the vaccine less effective.
Existing examples	• None	• Measles, Mumps and Rubella • Chickenpox	• Polio	• Pertussis • Hepatitis C • Human Human papillomavirus (HPV)	• Ebola • Veterinary medicine
Group testing this approach for COVID-19	• Moderna (RNA) • Inovio (DNA)	• Codagenix • Indian Immunologicals Ltd.	• Sinovac • Sinopharm	• Novavax • AdaptVac	• University of Oxford & AstraZeneca • CanSino Biologics • Johnson & Johnson

Sources: CDC; NIAID; FDA

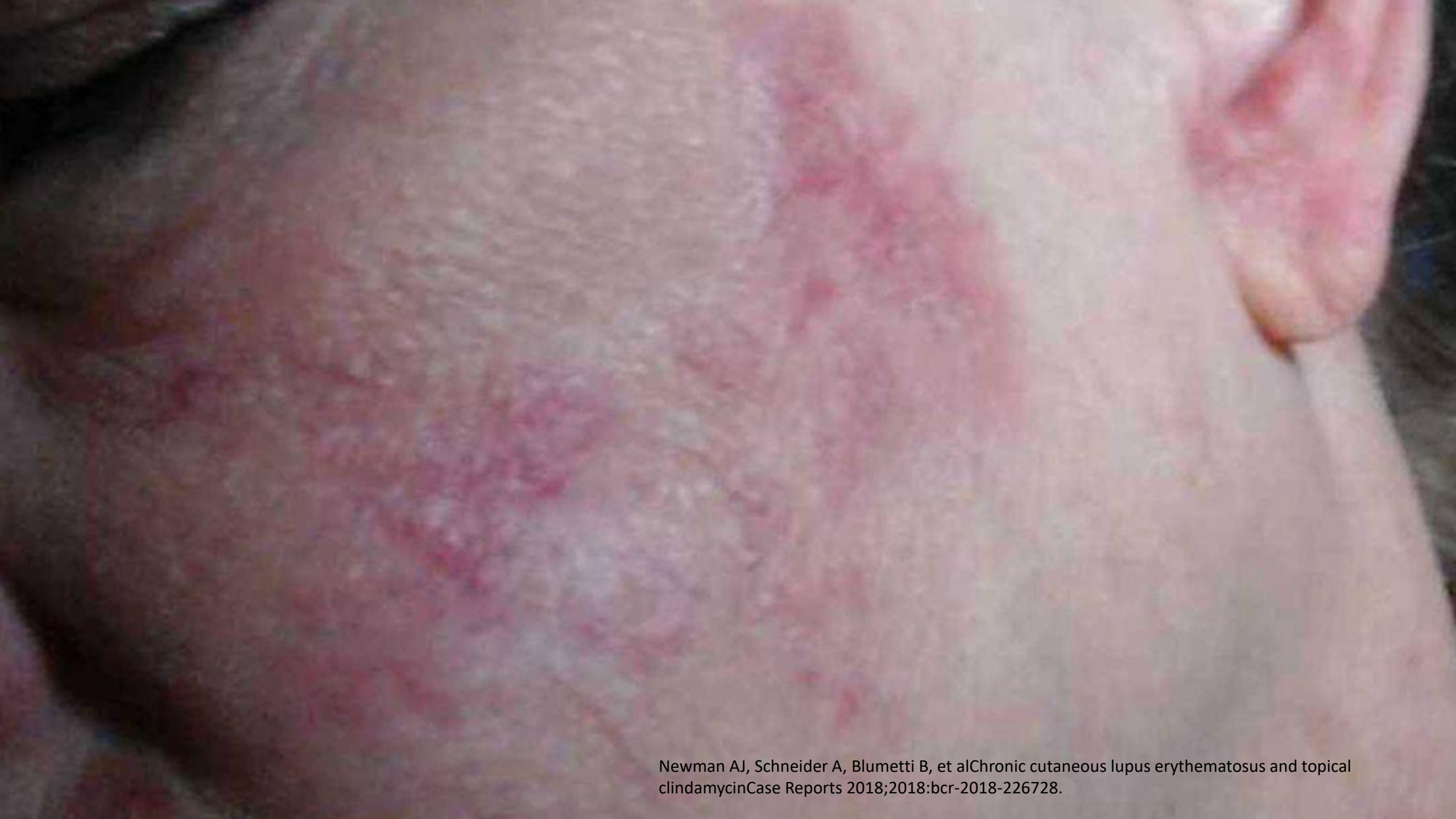
MICHELLE GUERRERO and JONATHAN WOSEN U-T

AN ARRAY OF VACCINES

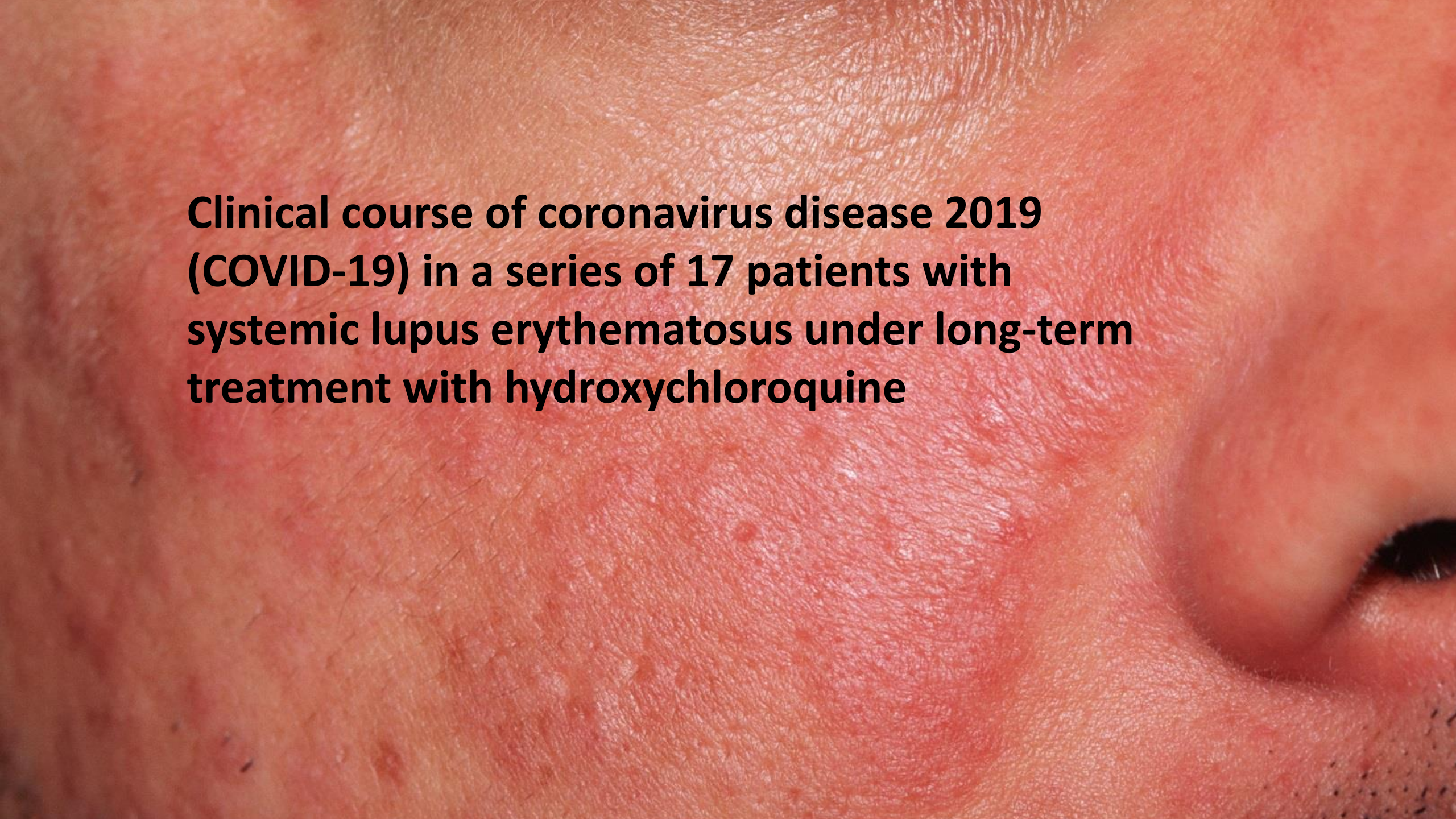


* Other efforts include testing whether existing vaccines against poliovirus or tuberculosis could help to fight SARS-CoV-2 by eliciting a general immune response (rather than specific adaptive immunity), or whether certain immune cells could be genetically modified to target the virus.

Nature analysis based on: WHO COVID-19 Vaccine Landscape/Milken Institute COVID-19 Treatment and Vaccine Tracker/T. Thanh Le et al. Nature Rev. Drug. Disc. http://doi.org/ggrnbr (2020)/F. Amanat & F. Krammer Immunity 52, 583–589 (2020)/W. Shang et al. npj Vaccines 5, 18 (2020).
NEWS FEATURE 28 APRIL 2020

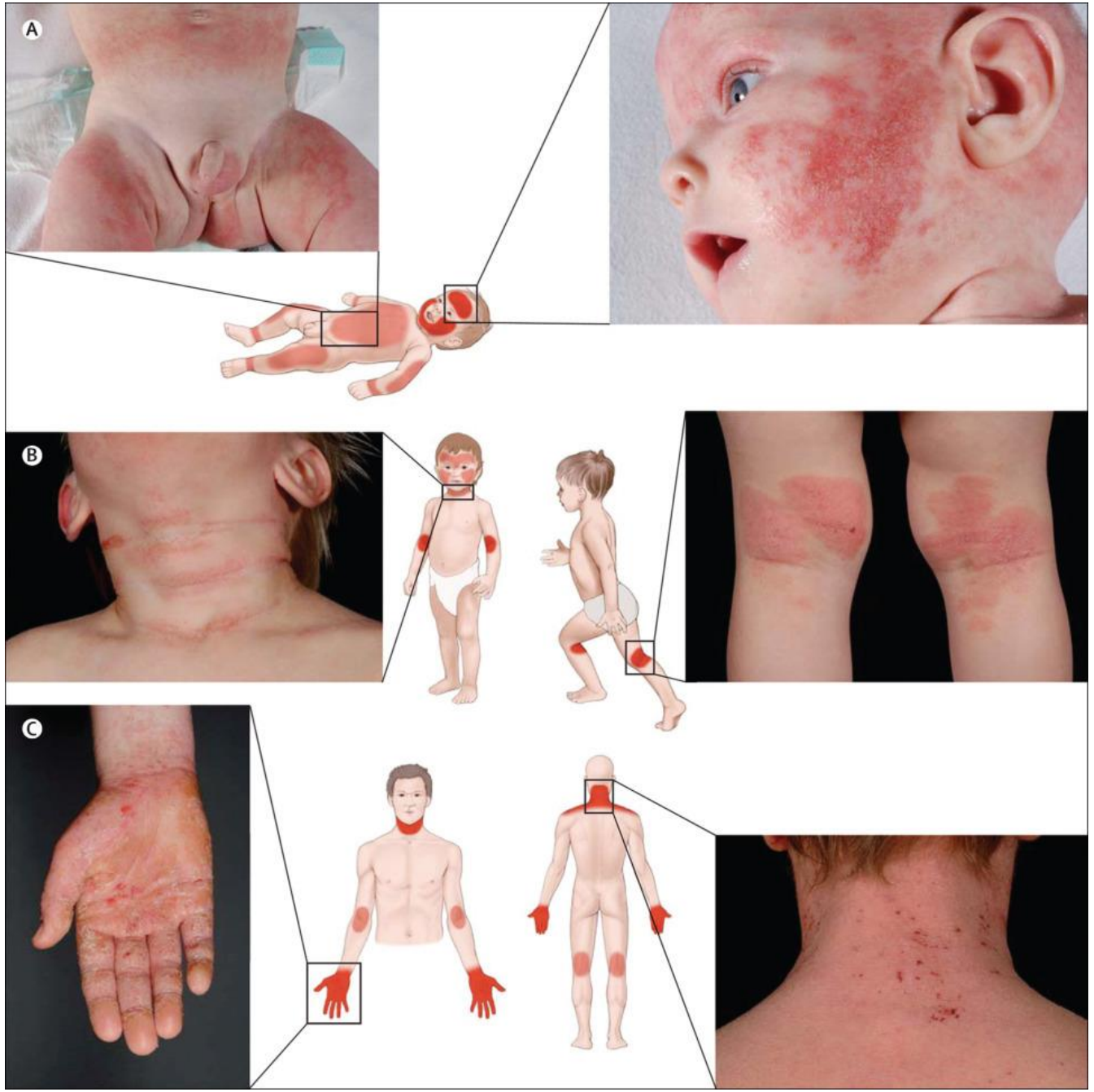


Newman AJ, Schneider A, Blumetti B, et alChronic cutaneous lupus erythematosus and topical clindamycinCase Reports 2018;2018:bcr-2018-226728.

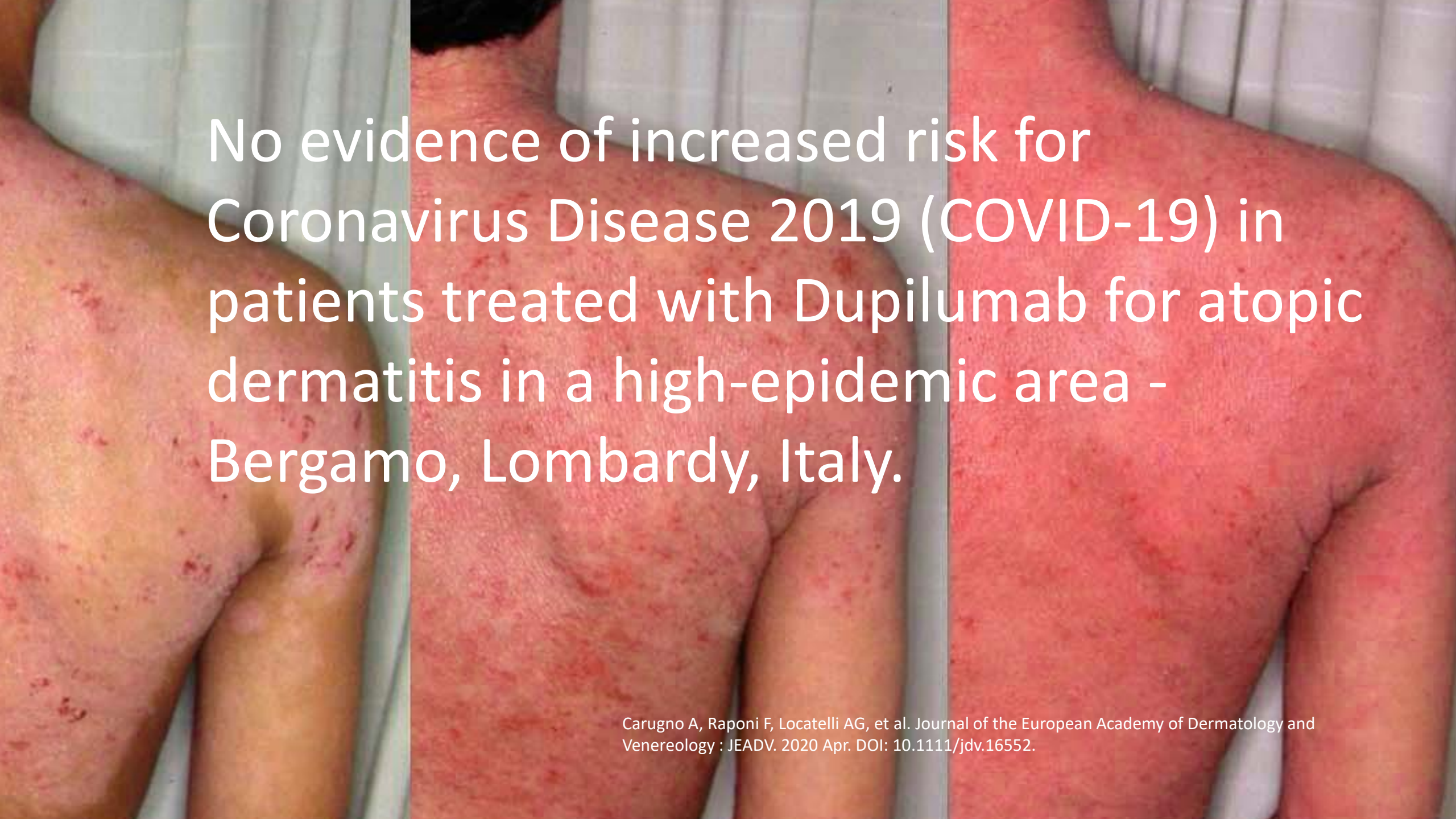

Clinical course of coronavirus disease 2019 (COVID-19) in a series of 17 patients with systemic lupus erythematosus under long-term treatment with hydroxychloroquine

Patients (N=17)	
Signs and symptoms at baseline	
Fever	17 (100)
Cough	14 (82)
Sputum	4 (24)
Shortness of breath	14 (82)
Respiratory rate >24 breaths per minute	9 (53)
Pulse >125 beats per minute	3 (18)
Myalgia	8 (47)
Confusion	1 (6)
Headache	10 (59)
Sore throat	6 (35)
Rhinorrhoea	4 (24)
Dysgeusia	5 (29)
Anosmia	5 (29)
Chest pain	4 (24)
Diarrhoea	7 (41)
Nausea and/or vomiting	3 (18)
Fever + cough + shortness of breath	13 (76)
Time from illness onset to fever, days	0 (0–12)

Mathian A, Mahevas M, Rohmer J, et al. of the Rheumatic Diseases 2020;79:837-839.

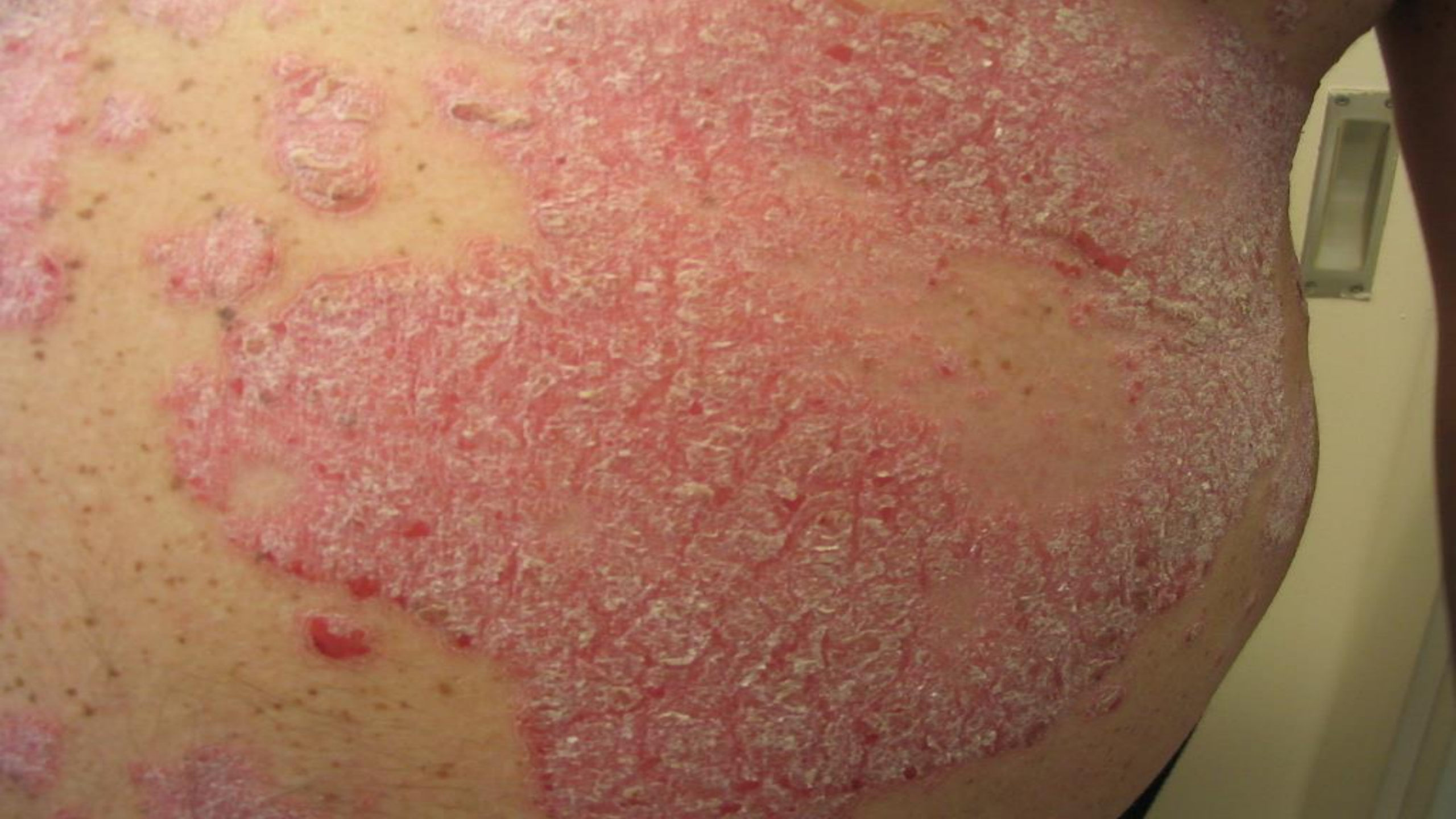


Atopic dermatitis. Weidinger, Stephan et al. 2015. The Lancet, Volume 387, Issue 10023, 1109 - 1122



No evidence of increased risk for Coronavirus Disease 2019 (COVID-19) in patients treated with Dupilumab for atopic dermatitis in a high-epidemic area - Bergamo, Lombardy, Italy.

Carugno A, Raponi F, Locatelli AG, et al. Journal of the European Academy of Dermatology and Venereology : JEADV. 2020 Apr. DOI: 10.1111/jdv.16552.

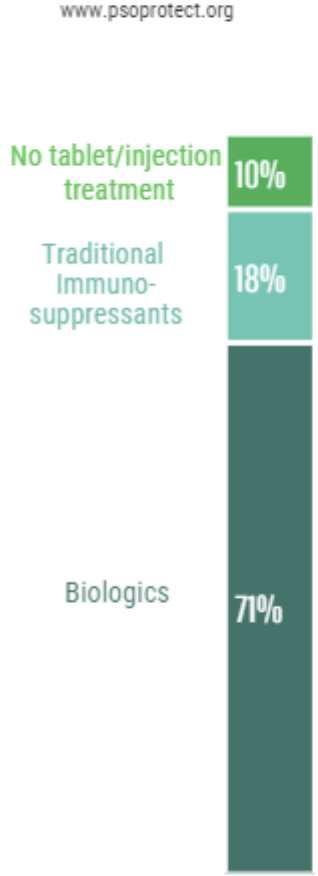


	Verona	Padua	Vicenza	Modena	Milan – Humanitas	Milan – San Donato	Turin	Total
Number of patients with psoriasis	1002	650	180	508	475	1093	1298	5206
Male sex, *n* (%)	631 (63)	461 (71)	130 (72)	340 (67)	299 (63)	66 (68)	896 (69)	2823 (67)
Age, years (mean ± SD)	56 ± 12·1	54 ± 10·2	58 ± 12·1	53 ± 13·2	48 ± 14·5	55 ± 10·1	49 ± 10·3	53·2 ± 11·2
Outcome measure, *n*								
Hospitalized for COVID-related disease	0	0	0	1	0	2	1	4
Deaths from COVID-related disease	0	0	0	0	0	0	0	0
Comorbidity, *n* (%)								
Obesity	301 (30)	162 (25)	54 (30)	193 (38)	133 (28)	197 (18)	273 (21)	1313 (25)
Cardiovascular disease	150 (15)	52 (8)	14 (8)	43 (8·4)	57 (12)	153 (14)	156 (12)	625 (12)
Hypertension	340 (34)	227 (35)	18 (10)	177 (34·9)	162 (34·1)	317 (29)	363 (28)	1604 (30·8)
Psoriatic arthritis	301 (30)	247 (38)	54 (30)	165 (32·5)	71 (15)	273 (25)	324 (25)	1435 (27·6)
Diabetes mellitus	120 (12)	78 (12)	22 (12)	45 (8·8)	57 (12)	131 (12)	182 (14)	635 (12·2)
Biological therapy, *n* (%)								
TNF-α inhibitors	501 (50)	312 (48)	108 (60)	188 (37)	57 (12)	240 (22)	273 (21)	1679 (32·2)
IL-17 inhibitors	280 (28)	175 (27)	27 (15)	183 (36)	190 (40)	492 (45)	649 (50)	1996 (38·3)
IL-12/23 inhibitor	170 (17)	162 (25)	36 (20)	99 (19·4)	185 (39)	361 (33)	376 (29)	1389 (26·7)
IL-23 inhibitors	50 (5)	–	9 (5)	39 (7·6)	43 (9)	–	–	141 (2·7)

Gisondi, P., Facheris, P., Dapavo, P., Piaserico, S., Conti, A., Naldi, L., Cazzaniga, S., Malagoli, P. and Costanzo, A. (2020), The impact of the COVID -19 pandemic on patients with chronic plaque psoriasis being treated with biological therapy: the Northern Italy experience. Br J Dermatol. doi:10.1111/bjd.19158

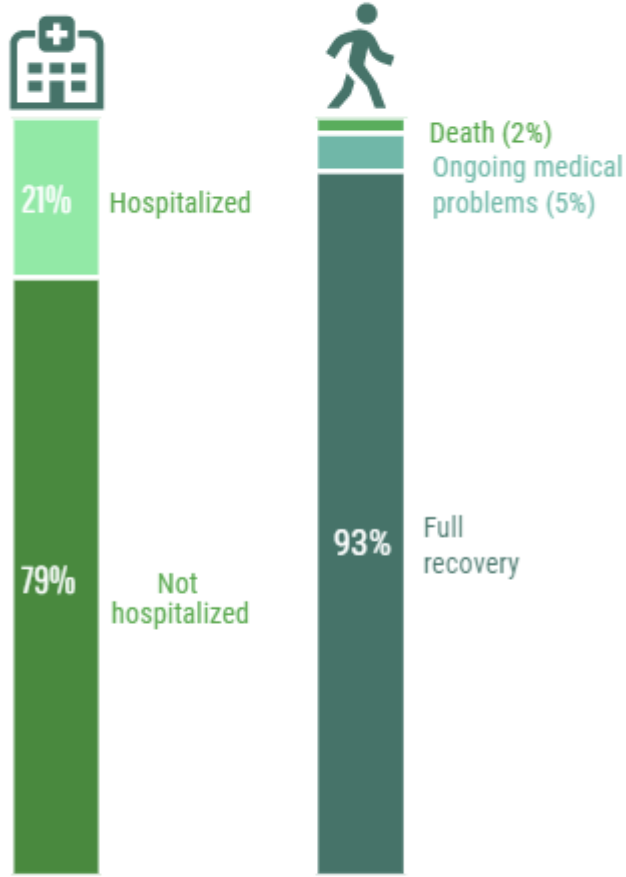
PsoProtect
www.psoprotect.org

Impact of COVID-19 in People with Psoriasis Taking Drugs that Affect the Immune System: Findings from the PsoProtect Registry



Risk factors of hospitalization:

- Male
- Older age
- Non-white ethnicity
- Other health conditions (chronic lung disease, high blood pressure, heart disease)



Study population:
374 people with moderate-severe psoriasis reported to PsoProtect from 25 countries

Hospitalized for COVID-19

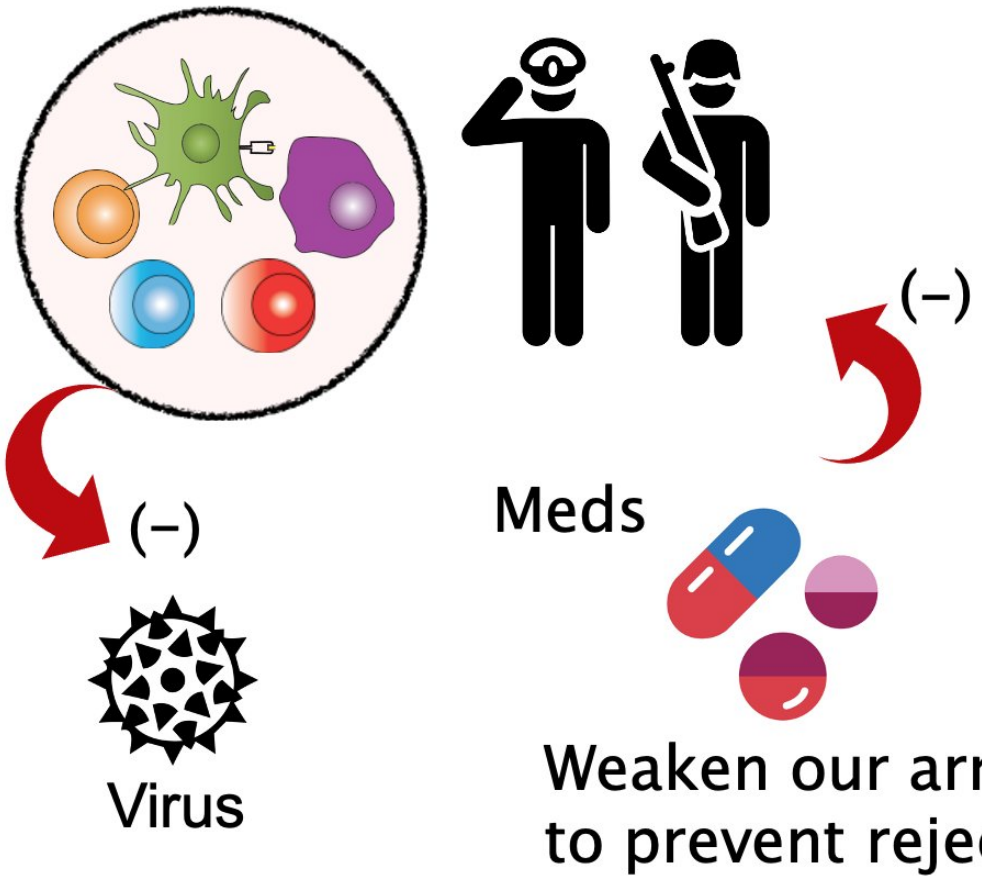
Overall Outcomes of COVID-19

Link to full manuscript (data cut 1st July 2020): https://www.jacionline.org/article/S0091-6749(20)31413-5/fulltext

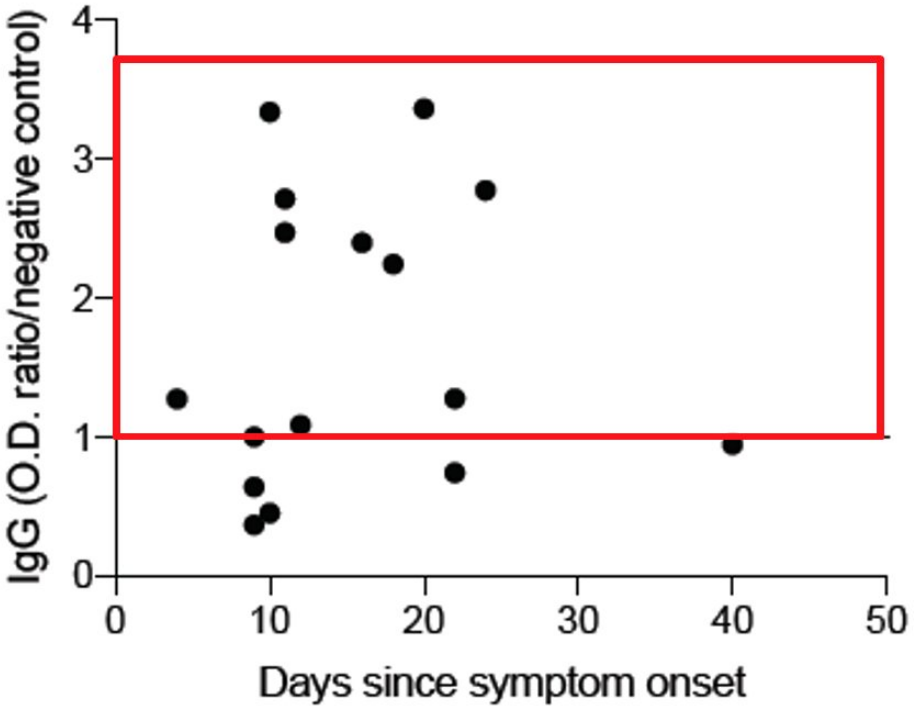
Transplantation & antibody against SARS-Cov2

MASSACHUSETTS GENERAL HOSPITAL
TRANSPLANT CENTER

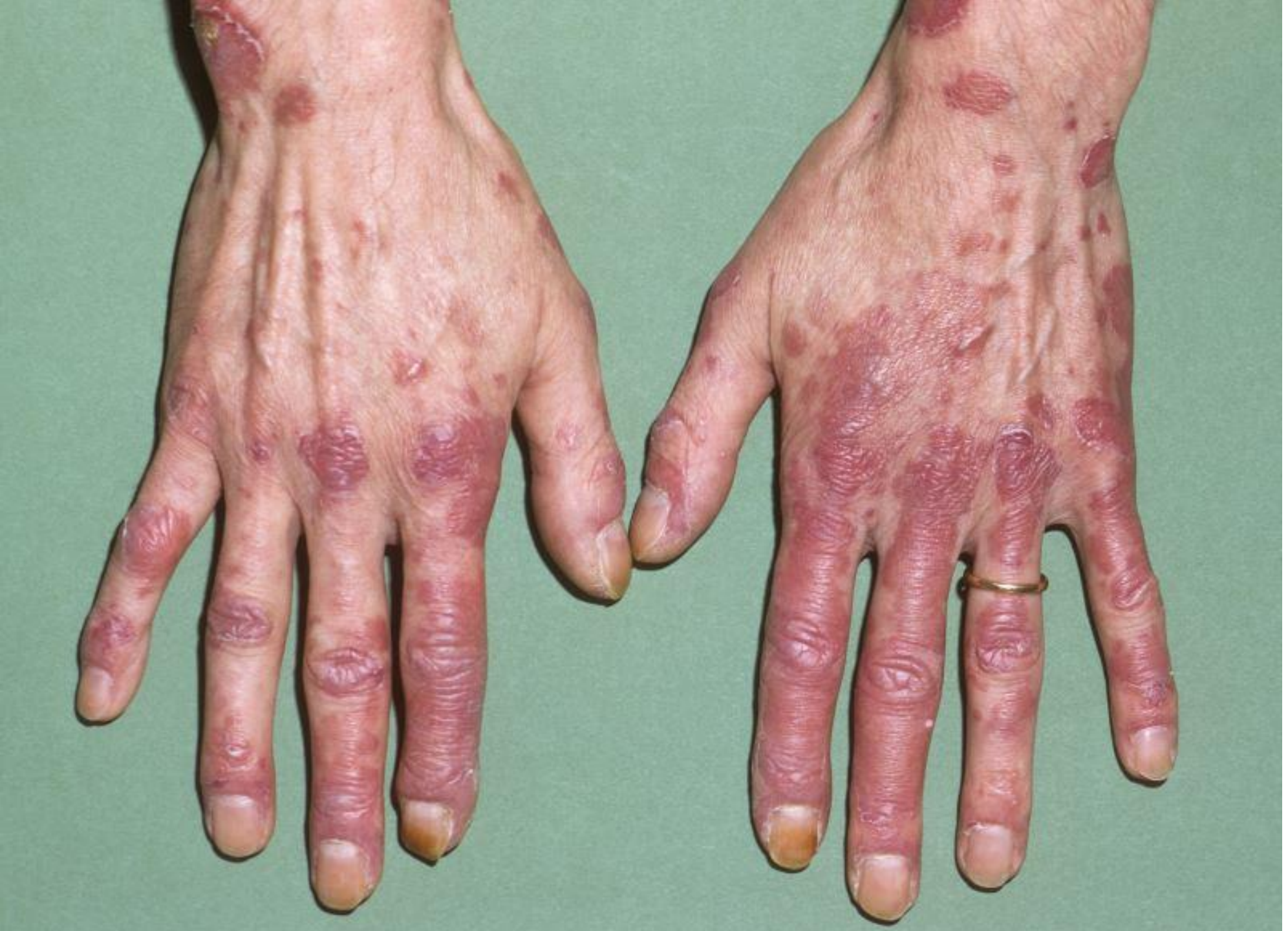
Our Army
The Immune System



Majority of transplant patients are able to generate an antibody response against SARS-Cov2!



Hartzell et al. Am J Transp 2020



Nearly one-third of patients with systemic lupus erythematosus who discontinued immunosuppressants experienced a disease flare.

https://www.rheumatologyadvisor.com/home/topics/systemic-lupus-erythematosus/disease-flares-common-after-discontinuing-immunosuppressants-in-systemic-lupus-erythematosus/

Wij volgen het standpunt van de RIVM
Stop niet zonder overleg met uw arts met uw medicatie, gezien de risico's van een opvlamming.
Het is vooral van belang om het risico op besmetting zoveel mogelijk te beperken door:

(1) hygiëne maatregelen in acht te nemen:
- was de handen regelmatig
- hoest en nies in de binnenkant van de ellenboog
- gebruik papieren zakdoekjes en gooi deze na gebruik weg.

(2) mogelijke risicomomenten op contact met virus infecties te vermijden, dat wil zeggen:
- Niet reizen naar gebieden waar het virus is vastgesteld
- Niet op bezoek gaan bij mensen die recent (< 2 weken geleden) in gebieden zijn geweest waar het virus is vastgesteld
- Niet op bezoek gaan bij mensen met klachten van koorts, hoesten en kortademigheid
- Bezoek aan evenementen waar veel mensen zijn zoals concerten of beurzen vermijden.

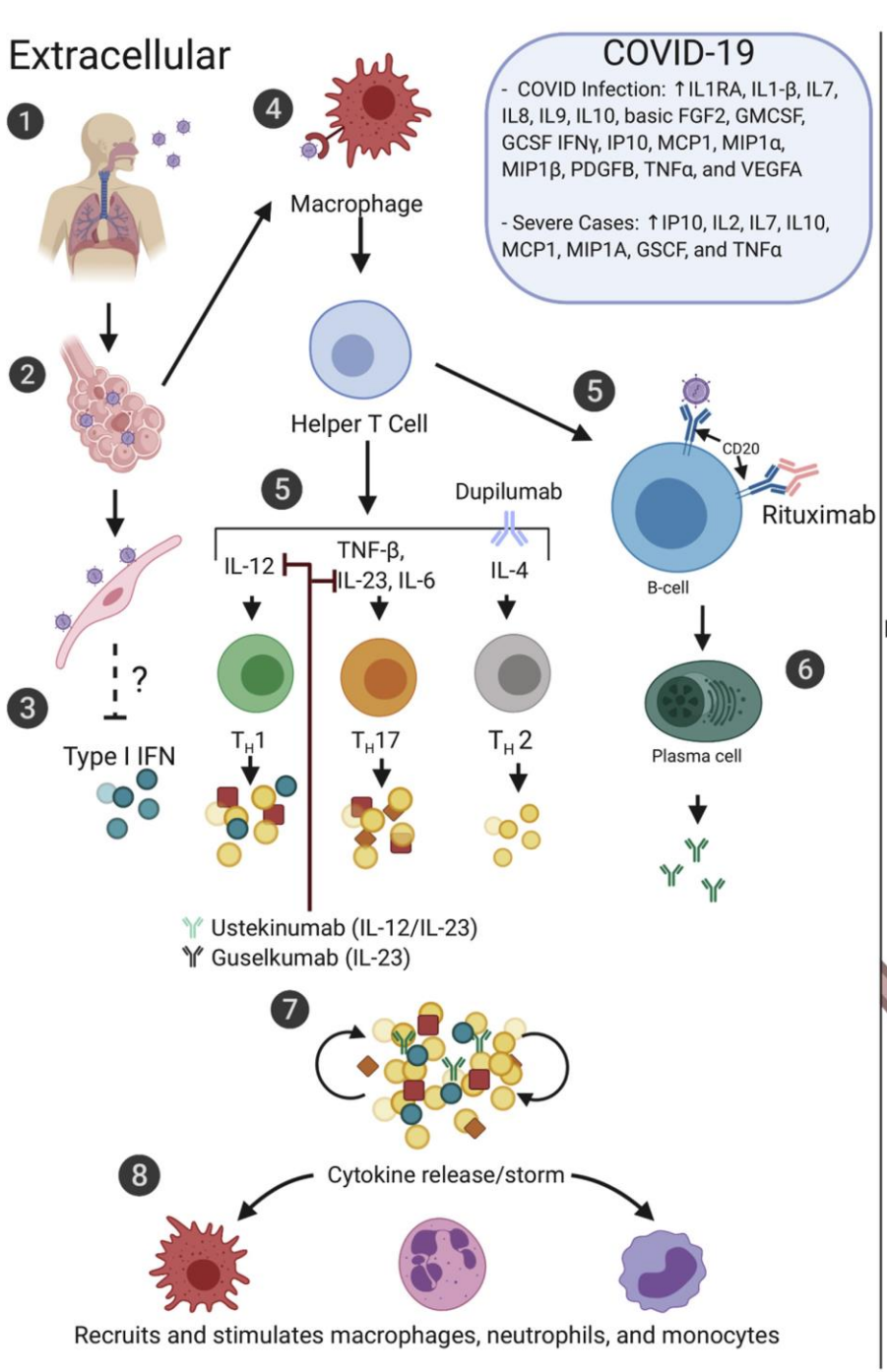
Bij nieuwe klachten die kunnen passen bij een luchtweginfectie zoals hoesten of toenemende kortademigheid is het verstandig laagdrempelig de temperatuur te meten en bij temperatuurverhoging (>38 graden) in eerste instantie de huisarts telefonisch te raadplegen.
Informeer uw huisarts of andere zorgverlener altijd over welke medicatie (naam en dosering) u gebruikt. Als u voor uw huidaandoening biologische medicatie gebruikt raden wij u aan bij temperatuurverhoging de volgende injectie uit te stellen totdat u heeft overlegd met uw arts.

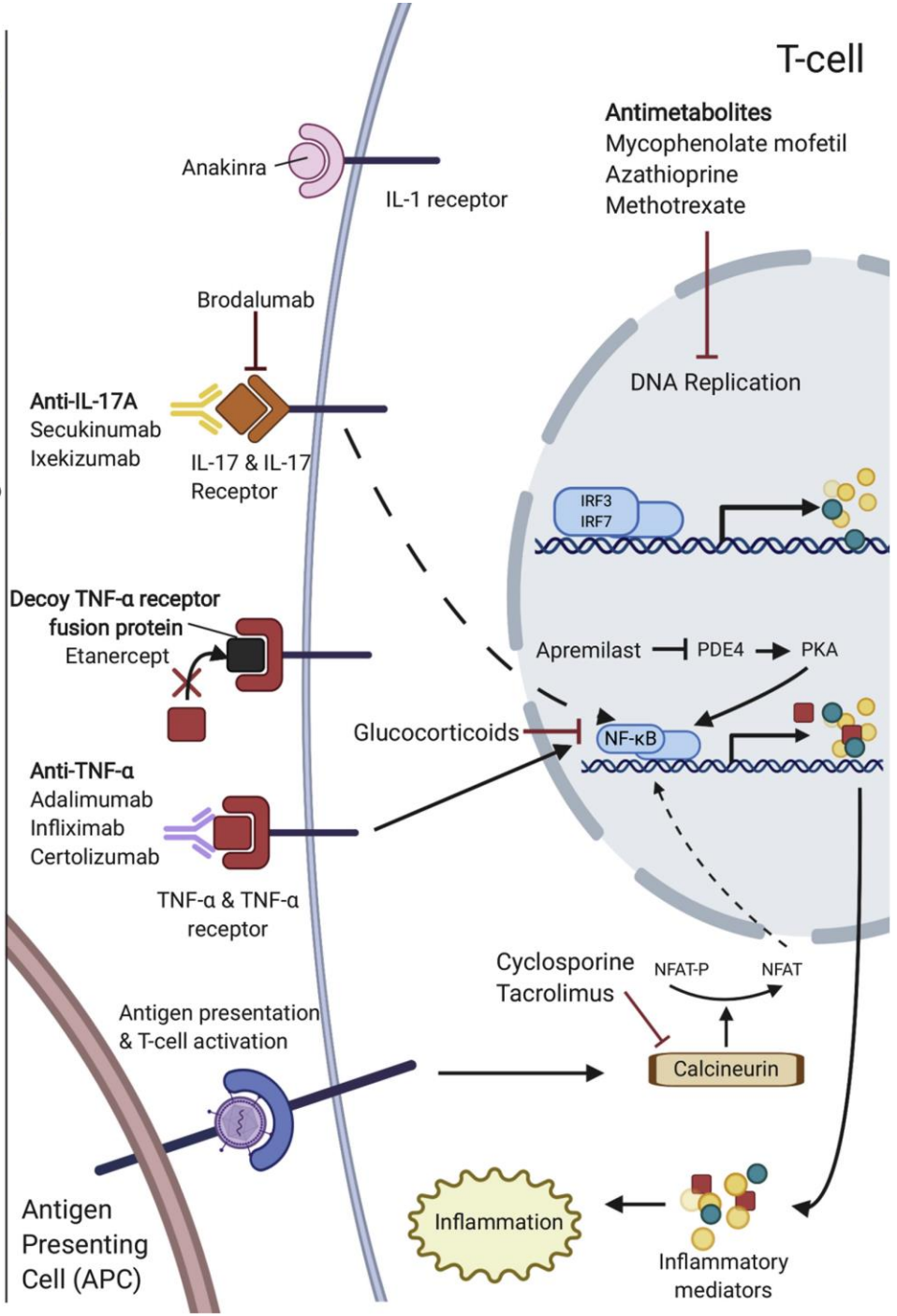
https://nvdv.nl/patienten/nvdv/nieuwsberichten/standpunt-nvdv-inzake-coronavirus-en-biologische-medicatie, April 2020

Table 1: Infectious Risk of Immunosuppressive Medications in Dermatology[a]		
	Therapies	**Infectious Risk**
Group A	Secukinumab (Cosentyx) Ixekizumab (Taltz) Brodalumab (Siliq) Guselkumab (Tremfya) Tildrakizumab-asmn (Ilumya) Risankizumab-rzaa (Skyrizi) Dupilumab (Dupixent)	No effect on viral immunity
Group B	Ustekinumab (Stelara) Apremilast (Otezla)	Theoretical effect on T_h1/viral immunity, but no actual increased incidence of viral infections while on drug
Group C	Etanercept (Enbrel) Infliximab (Remicade) Adalimumab (Humira) Certolizumab pegol (Cimzia) Tofacitinib (Xeljanz) Baricitinib (Olumiant) Upadacitinib (Rinvoq)	Slight increased risk of infections in general, including viral infections
Group D	Prednisone Methotrexate Cyclosporine Azathioprine Mycophenylate mofitil	More broad-based immunosuppression, which would increase risk of infections, including viral infections
a) Data in this table is based on Dr Blauvelt's clinical experience and review of the literature.		

https://www.the-dermatologist.com/article/covid-19-dermatology

COVID-19 and immunomodulator/ immunosuppressant use in dermatology





JAAD, May 2020, Volume 82, Issue 5, Pages e173–e175
COVID-19 and immunomodulator/immunosuppressant use in dermatology
Kyla N. Price, BS, John W. Frew, MD, Jennifer L. Hsiao, MD, Vivian Y. Shi, MD

Considerations for commonly used immunomodulators and immunosuppressants for dermatologic conditions

Drug class	Mechanism of action	Drug name	Risk	Comments/considerations*
Classic immunosuppressants				
	Inhibits NF-κB	Corticosteroids	Likely concerning risk	Consider stopping when viral symptoms present especially with known or potential exposure
	Calcineurin inhibitor	Tacrolimus		
		Cyclosporine		
Antimetabolites	Inhibits DNA replication	Mycophenolate mofetil		
		Azathioprine		
		Methotrexate		
Immunomodulators				
Monoclonal antibodies	TNF-α inhibition	Infliximab	Likely moderate risk	Continue if viral symptoms are mild, consider stopping if viral symptoms worsen or high fever develops
Receptor fusion protein		Etanercept		
Monoclonal antibodies		Certolizumab		
Monoclonal antibodies		Adalimumab		
IL receptor modulators	IL inhibition	Anakinra (IL-1)		
Monoclonal antibodies		Dupilumab (IL-4)	Likely low risk	Continue unless severe symptoms present
Monoclonal antibodies		Brodalumab (IL-17)	Likely moderate risk	Continue if viral symptoms are mild, consider stopping if viral symptoms worsen or high fever develops
Monoclonal antibodies		Secukinumab (IL-17a)		
Monoclonal antibodies		Ixekizumab (IL-17a)		
Monoclonal antibodies		Ustekinumab (IL-12/23)		
Monoclonal antibodies		Guselkumab (IL-23)		
Monoclonal antibodies	Anti-CD20 antibody	Rituximab	Likely concerning risk	Consider stopping when viral symptoms present especially with known or potential exposure.
	PDE4 inhibition	Apremilast	Likely low risk	Continue unless severe symptoms present

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Risk	Drug	Comments
	Systemic steroids	Strong dose-dependent risk of infection and existing evidence for harm in critically ill viral pneumonia patients although some preliminary evidence showing potential mortality benefit of dexamethasone in oxygen or ventilator dependent patients
	Rituximab	Prolonged B-cell depletion; consider potential impact on future vaccine immunity to COVID-19
	Cyclosporine	Frequent monitoring; multiple drug-drug interactions; risk of harm is likely dose-dependent
	Azathioprine and Mycophenolate mofetil	Association with viral infections, including HZV and CMV (transplant data)
	JAK inhibitors	Caution regarding use due to viral infection concern (HZV) and DVT/PE risk Potentially beneficial anti-viral effect with baricitinib and ruxolitinib, but not with tofacitinib
	TNF inhibitors	IFX likely highest risk among anti-TNF; caution with higher doses (e.g., IFX 10 mg/kg dosing)
	IL-17 inhibitors	Possible increased URI risk suggested in recent metanalysis of clinical trial data
	Methotrexate	Low overall risk of infections or infectious complications; may be associated with higher risk when used in combination therapy
	IL-12/23 inhibitor	Theoretical role of IL-12 in antiviral response, though not clearly implicated in COVID-19 pathology
	IL-23 (p19) inhibitors	
	Apremilast	
	Dupilumab	
	Hydroxychloroquine	No significant risk of infection or infectious complications; to date, no evidence for benefit in treatment of COVID-19
	Other:	Immunomodulatory agents (e.g. retinoids, dapsone, colchicine, etc.)

Evidence suggests harm - avoid if possible
Mixed data - proceed with caution
Low risk of harm
Not immunosuppressive

CMV, Cytomegalovirus; DVT, deep venous thrombosis; HZV, herpes zoster virus; IL, interleukin; PE, pulmonary embolus; URI, upper respiratory infection.

Omid Zahedi Niaki, et al. Navigating immunosuppression in a pandemic: A guide for the dermatologist from the COVID Task Force of the Medical Dermatology Society and Society of Dermatology Hospitalists,
Journal of the American Academy of Dermatology, Volume 83, Issue 4, 2020, Pages 1150-1159,
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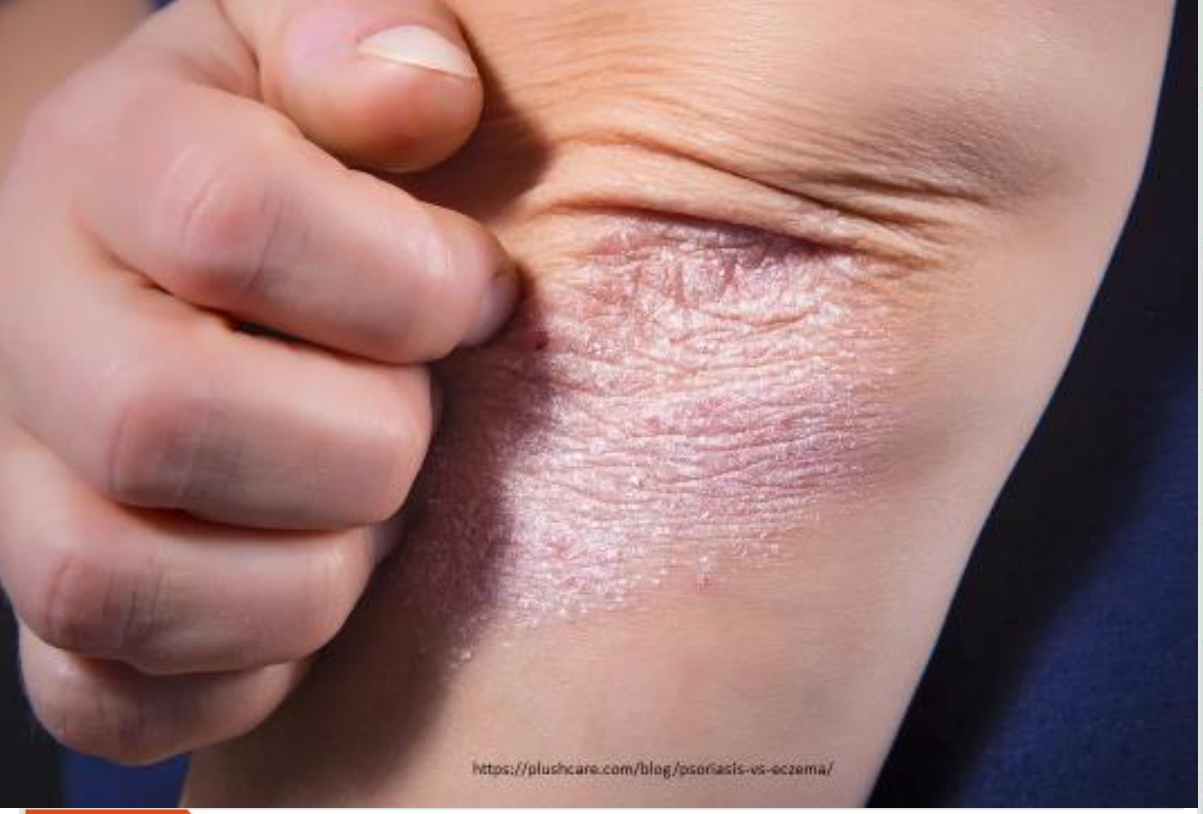


PSORIASIS & CORONA
VRAGENLIJST

Deze vragenlijst is uitgezet van 30 augustus tot 1 oktober, onder patiënten met psoriasis over hun ervaringen met de zorg en hun zorgen rondom corona.

Respondenten
563
63% 37%

85% heeft een leeftijd van
40+

Langer dan 3 jaar diagnose psoriasis
86%

Onder behandeling bij:
53% Dermatoloog
30% Huisarts

79% heeft te maken met nog andere aandoening zoals overgewicht (28%) en hoge bloeddruk (27%)

3% respondenten heeft coronavirus zelf gehad

63% 37%

Dermatoloog Huisarts

79% heeft te maken met nog andere aandoening zoals overgewicht (28%) en hoge bloeddruk (27%)

3% respondenten heeft coronavirus zelf gehad

Impact coronavirus op >	Bezorgdheid	Afspraken met zorgverleners afgezegd of verzet	Medicatie aangepast of (tijdelijk) stopgezet
Lokale behandeling die wordt aangebracht op de huid (bijvoorbeeld zalf) (n=252)	22%	27 %	11%
Systemische behandeling oraal (tablet) (n=55)	49%	57 %	32%
Biologische behandeling via injectie of infuus (n=76)	57%	73 %	45%

Ervaringen met beeldbellen

Heeft u met uw behandelend arts kunnen bellen of beeldbellen tijdens de coronacrisis?

60% nee
40% Ja

1/3 WAS POSITIEF OVER HET (BEELD)BELLEN MET DE BEHANDELEND ARTS
(bijv. Skype of Zoom)

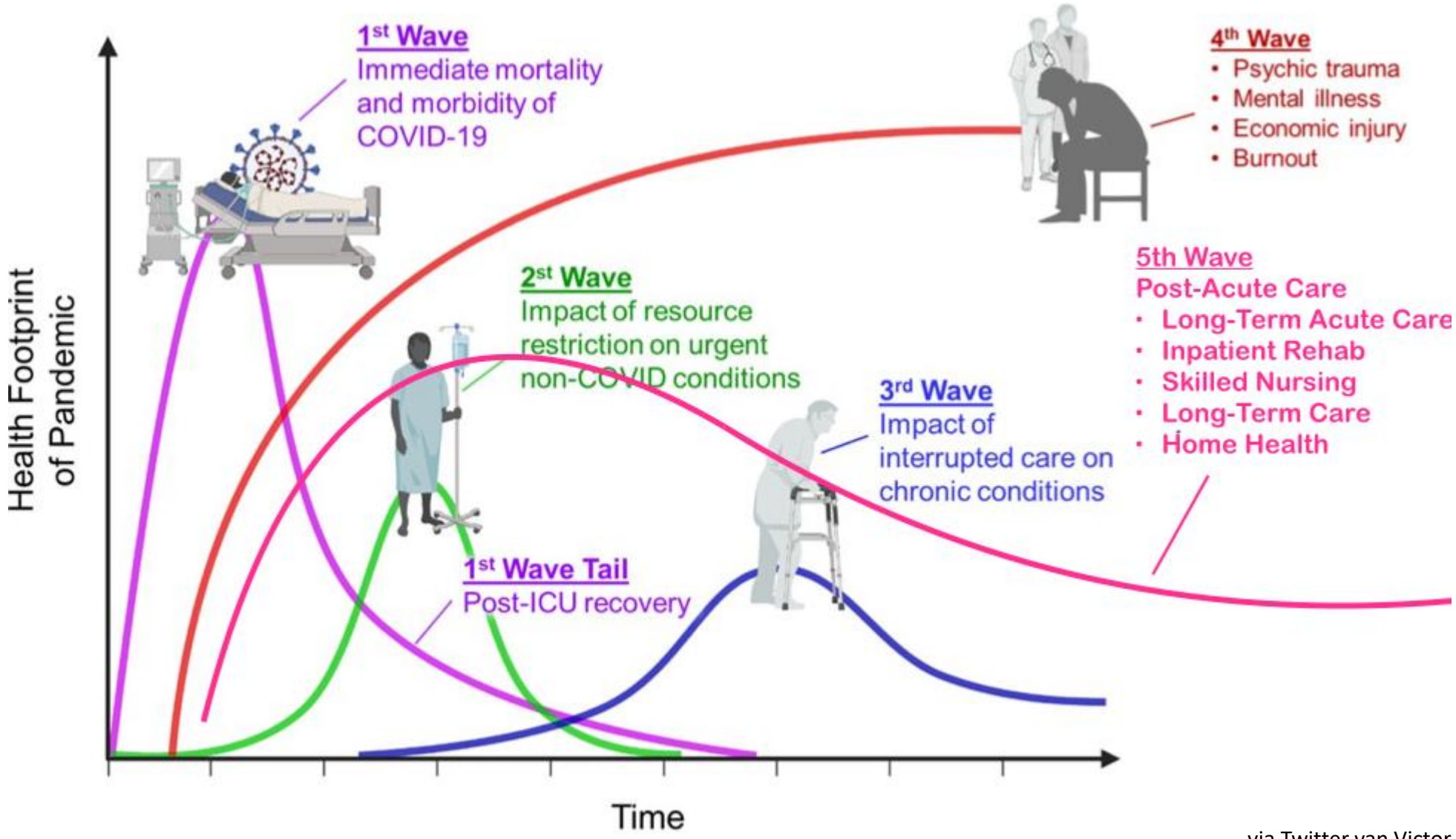
Informatiebehoefte:

Ondersteuning gewenst in welke vorm?

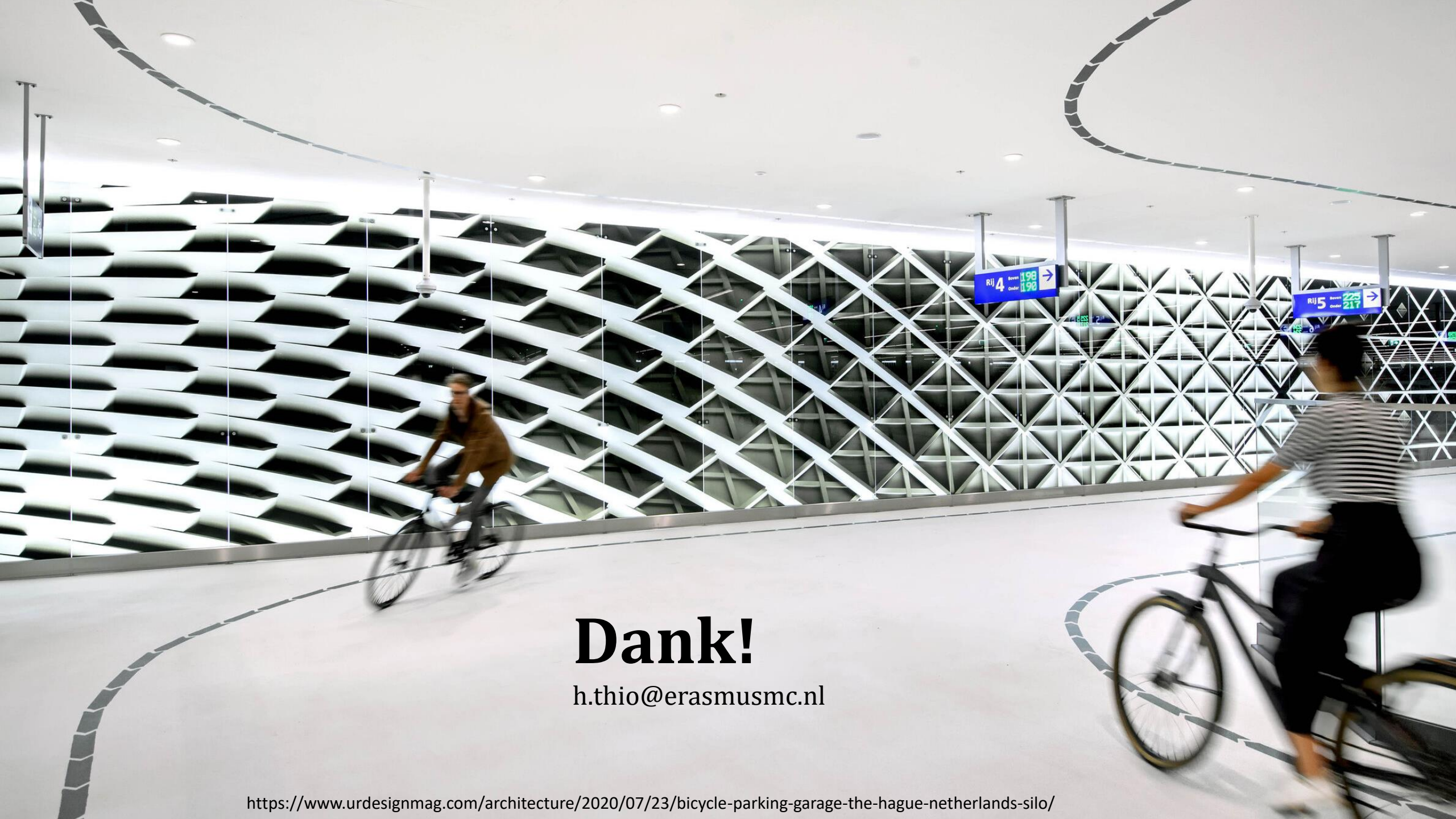
- Info over het coronavirus speciaal voor psoriasispatiënten
- Info op website patiëntenorganisatie
- Extra consult / gesprek

De vragenlijst is gemaakt in samenwerking met:
Psoriasispatiënten Nederland / Ronald Frank, dermatoloog ziekenhuis Bernhoven / Danique Passage, huisarts Kerkrade
Roel Fijn, ziekenhuisapotheker Alrijne Ziekenhuis / LEO Pharma

Long-Term consequences



via Twitter van Victor Tseng, @vectorsting



Dank!

h.thio@erasmusmc.nl

https://www.urdesignmag.com/architecture/2020/07/23/bicycle-parking-garage-the-hague-netherlands-silo/