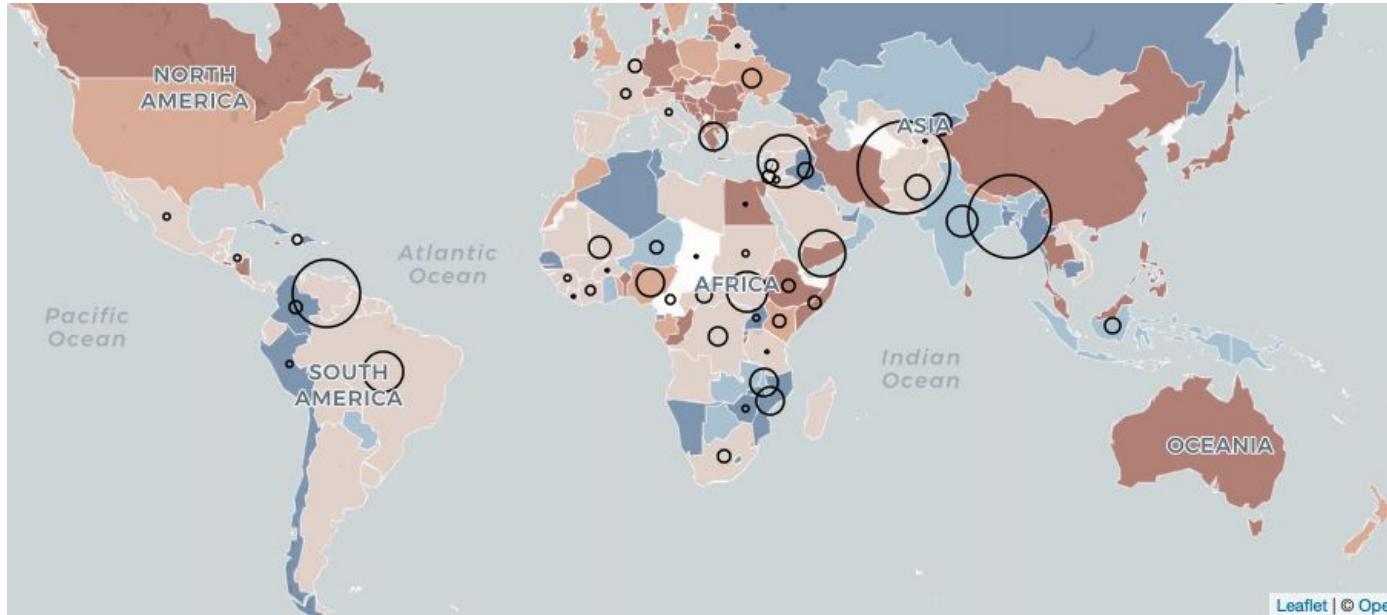


COVID-19 vaccine R&D: Where we are and what lies ahead?

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- Started preparation in January 2020
- Now working on COVID19 in 219 projects
- 200,000+ patients globally
 - 140,000 in Asia



- Neglected Tropical Diseases
- Ebola / Emerging Infectious Diseases
- MDR-TB / AMR





Where we are

1. Rich pipeline:
 - 6 WHO EUL vaccines
 - 110 vax candidates in clinical development (27 in phase 3/4)
 - Hundreds in pre-clinical development
2. Most R&D decisions are shaped by private interests
(Revenue >>> Global public health)
3. Critical R&D support provided by the public but without effective conditions on transparency, pricing, supply, or R&D prioritization
4. Neglect and undervaluing of LMIC expertise in R&D
5. Large multinational pharmaceutical companies as project managers, not innovators
6. Reliance on predictably flawed mechanisms for R&D and supply
(eg. COVAX)

Where we are heading

1. "2nd generation vaccines"
 - Pan-/Multi-variant vaccines
2. Correlates of protection
 - Antibodies vs. cellular correlates
 - Which regulator will be first to move?
3. Phase 4 -> an opportunity for the public interest prioritization?
 - Large platform trials
 - Solidarity trial in the Philippines?
4. Building manufacturing and R&D expertise in LMICs based on novel platforms – independence promoting technology transfer
5. (mRNA) Hub as a decentralized and inclusive R&D partner?



Things to remember

1. Speedy development of COVID19 vaccines only possible due to decades of publicly championed research



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Funder	US\$ (millions)			Cumulative total 2018 % of total	
	2016	2017	2018		
US NIH	21	36	20	77	48
CEPI	-	-	12	12	29
IVI	0.9	2.3	6.2	9.3	15
EC	1.0	0.7	0.8	2.5	2.0
French ANR	-	-	0.6	0.6	1.4
German BMBF	-	<0.1	0.5	0.6	1.3
German DZIF			0.4	0.4	0.9
German DFG	1.9	0.5	0.4	2.8	0.9
UK MRC	-	0.3	0.3	0.6	0.6
Aggregate industry	<0.1	-	0.2	0.3	0.5
Swiss SNSF	<0.1	0.4	<0.1	0.5	0.2
Wellcome Trust	-	-	<0.1	<0.1	0.2
Subtotal of top 12^	25	44	41	109	100
Disease group total	25	44	41	110	100

Ref: "Landscape of Emerging Infectious Disease R&D: Preventing the next pandemic", Policy Cures Research Report, 2020



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1. Speedy development of COVID19 vaccines only possible due to decades of publicly championed research
2. COVID19 has not fixed market/system failures & in the absence of significant policy changes current R&D efforts are not indications of the future progress



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1. Speedy development of COVID19 vaccines only possible due to decades of publicly championed research
2. COVID19 has not fixed market/system failures & in the absence of significant policy changes current R&D efforts are not indications of the future progress
3. Regardless of ideology or political position, lacking transparency inhibits progress



Thank you!

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