

WEBINAIRE COVID-19

Comprendre les nouvelles opportunit  de financement   l' chelle mondiale

WEBINAR COVID19

Understand New Global Funding Opportunities

Vendredi 29 mai 2020
Friday, May 29th, 2020



Montr al
International

BIOQU BEC

Agenda

MOT DE BIENVENUE

Stéphanie Doyle, directrice Développement des affaires SVTS, MTL INTL

DISCUSSION

Anie Perrault, directrice générale, BIOQuébec

PANEL

Jean-François Pariseau, associé fondateur, Amplitude

Antoine Boulanger Piette, PhD analyste en capital de risque, Forbion

Maha Katabi, PhD, CFA partenaire, Sofinnova Investments

Gabriel Douville, chargé d'investissement, OneVentures

Geneviève Guertin, directrice des investissements, Fonds de solidarité FTQ

PÉRIODE DE QUESTIONS

Stéphanie Doyle et Anie Perrault

MOT DE CONCLUSION

Stéphanie Doyle, directrice Développement des affaires SVTS, MTL INTL

Vendredi 29 mai 2020
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International

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Un pôle des sciences de la vie et des technologies de la santé en pleine effervescence



56 000

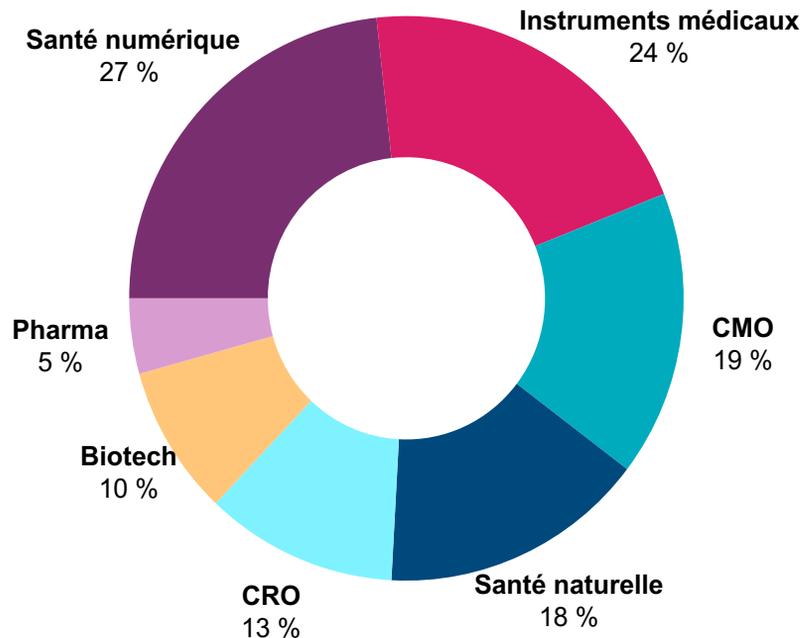
emplois (dont 80 % sont dans le Grand Montréal)



80 %

de l'écosystème est basé dans le Grand Montréal

Répartition des entreprises en sciences de la vie et technologies de la santé au Québec (%)



Un vaste réseau d'investisseurs en capital de risque

Exemples récents de financement pour les entreprises des sciences de la vie :

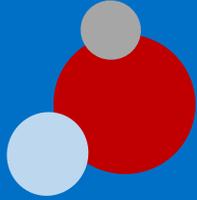


Capital de risque – privé

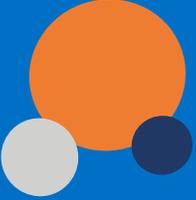


Partenaires institutionnels





Jean-François Pariseau
Associé
fondateur, Amplitude



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COVID-19 is a Worldwide Problem

Affected Countries/Regions

as of 11 May 2020



Note:

Confirmed cases of COVID-19 do not represent the true extent of cases in each country. The number of confirmed cases is heavily dependent on the extent of testing.

China case counts do not include counts from Hong Kong (1,047 confirmed cases | 982 recovered | 4 deaths), Macau (45 confirmed cases | 41 recovered | 0 deaths) and Taiwan (440 confirmed cases | 366 recovered | 6 deaths)

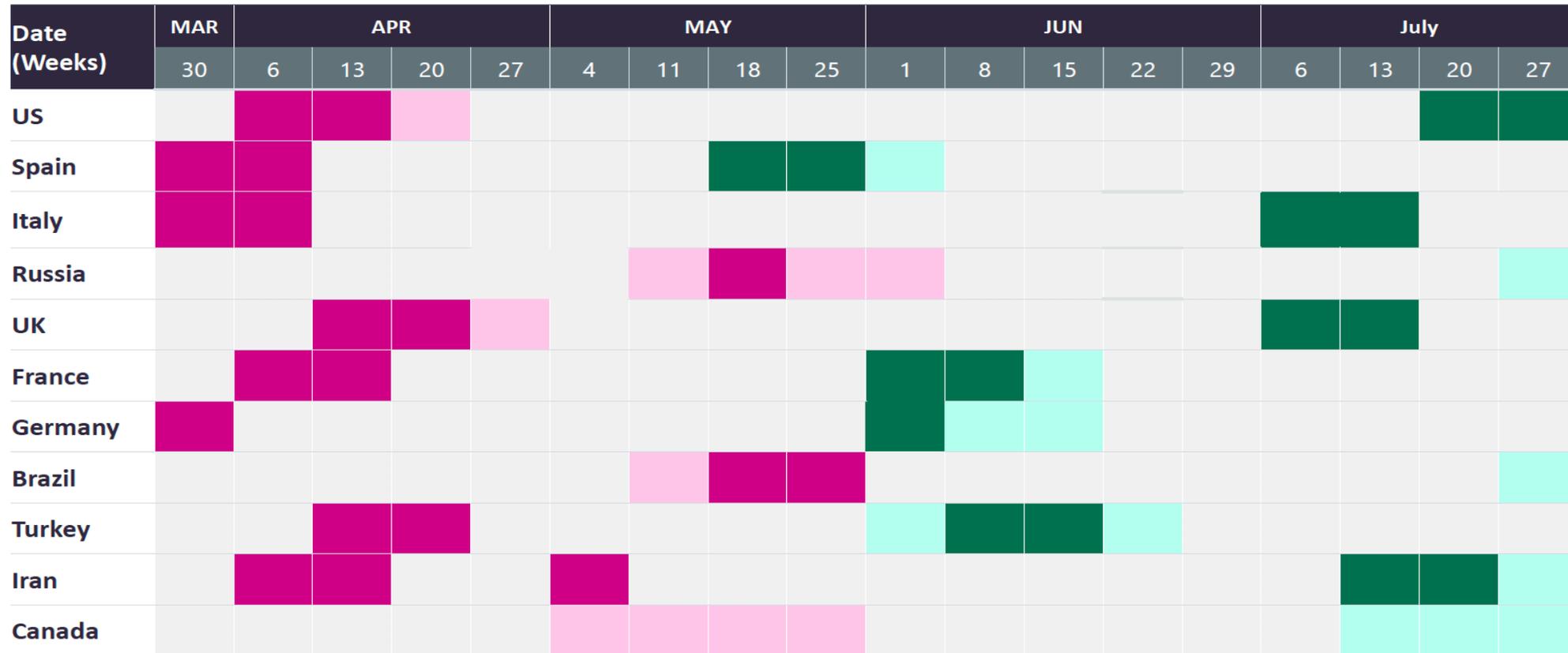
Source: GlobalData Analysis; 2019 Novel Coronavirus COVID-19 (2019-nCoV) Data Repository by Johns Hopkins CSSE; Verdict Media

	Confirmed Cases	Recovered	Deaths
United States	1,329,799 +101,196	216,169 +26,259	79,528 +6,097
Spain	224,350 +4,025	136,166 +10,164	26,621 +764
United Kingdom	220,449 +18,090	1,002 +68	31,930 +1,780
Italy	219,070 +4,613	105,186 +11,941	30,560 +876
Russia	209,688 +43,759	34,306 +12,979	1,915 +378
France	177,094 +2,870	56,327 +2,246	26,383 +571
Germany	171,879 +3,717	145,600 +5,700	7,569 +294
Brazil	162,699 +36,088	64,957 +13,587	11,123 +2,535
Turkey	138,657 +6,913	92,691 +14,489	3,786 +202
Iran	107,603 +5,953	86,143 +4,556	6,640 +222
China	82,918 +33	78,144 +187	4,633

Infection Peak and Decline Forecasts for Select Countries

Estimated Peak Weeks and Decline to Zero New Cases Weeks for Top Infected Countries (Excluding China)

as of 11 May 2020



Note: Trends from China showed a steep drop after reaching peak. However, recent trends from US, UK, Italy, Spain, and other markets showed slower declines after peak than China, and in some markets, a long extended plateau without obvious peak or decline. Recovery forecast will now be trended along the new running average model taking into account the more drawn out recovery observed in recent weeks unless data suggests otherwise. Additional surges after initial peak are also likely due to countries opening up.

Peak weeks in pink; recovery weeks with decline in daily new cases close to 0 in green. Lighter shaded squares represent more uncertain estimates.

COVID-19 has Impacted the World's Top Economies

Countries	Confirmed Cases	Cases per Million Capita	Deaths	Case Fatality Rate	Stimulus (\$ Billion)	Stringency Index	Active Jobs (30 Day Change)	Market Index (YTD Change)	GDP Growth (2020 Estimate)
United States	1,329,799	4,018	79,528	6.0%	4,984	70	-8.9%	-8.4%	-5.3%
China	82,918	58	4,633	5.6%	368	61.67	-15.0%	-4.6%	0.8%
Japan	15,777	125	624	4.0%	1,098	56.19	-20.6%	-12.3%	-4.7%
Germany	171,879	2,052	7,569	4.4%	1,231	77.62	-13.5%	-18.2%	-6.6%
India	67,259	49	2,212	3.3%	23	93.57	-28.9%	-20.6%	2.1%
United Kingdom	220,449	3,247	31,930	14.5%	446	80.95	-14.6%	-21.8%	-7.6%
France	177,094	2,713	26,383	14.9%	455	92.38	-12.2%	-22.9%	-8.3%
Italy	219,070	3,623	30,560	13.9%	861	94.29	-24.8%	-27.6%	-9.4%
Brazil	162,699	765	11,123	6.8%	149	75.71	-17.0%	-50.9%	-3.2%
Canada	70,091	1,857	4,991	7.1%	142	80	-11.2%	-12.6%	-6.0%

Note: Case Fatality Rate is the ratio of total death to total confirmed case. Market Index data is based on MSCI index of respective country. GDP growth estimates are based on consensus data from various analysts and firms.

Stringency index, created by Oxford COVID-19 Government Response Tracker (OxCGRT), is the aggregated score based on several different common policy responses governments have taken, such as school and workplace closures and restrictions on travel and gatherings etc.

Source: GlobalData Analysis; Press Articles; 2019 Novel Coronavirus COVID-19 (2019-nCoV) Data Repository by Johns Hopkins CSSE; World Health Organization; Trading Economics; Invest COVID-19 Government Response Tracker (OxCGRT).

Medical COVID-19 value chain impact

Disruption in medical markets is expected to continue through the end of 2020

Companies with minimal supply chain disruption are better equipped to perform well over the long term

	Supplier Network	Manufacturers	Sales & Marketing	End Users (Patients, Physicians, Hospitals)
Short-term impact	<p>Logistics and dearth of device components supplies will be major issues for all.</p>	<p>Most Medical companies will show a decline in revenues in Q1 and Q2 due to the limited number of procedures being done.</p>	<p>With disruptions in face-to-face meetings, sales forces will lower effectiveness using virtual and electronic marketing tools.</p>	<p>Physicians are currently overworked, understaffed, and have inadequate supplies to handle large influxes of patients with severe disease.</p>
Mid-term impact	<p>As concerns over availability of materials subside, manufacturing process will begin to resume, though will initially lag relative to regular operations.</p>	<p>Developers of COVID-19 interventions could thrive; the bulk of the industry will be challenged with supply chain interruptions, and limited procedures.</p>	<p>Sales will begin to recover once supply chains and procedures are not disrupted.</p>	<p>Healthcare providers will continue to struggle with provided adequate patient care as long as a shortage in any aspect of patient care is deficient.</p>
Long-term impact	<p>Growth will be derived from opportunities to manufacture and support distribution of COVID-19 tests and test capabilities.</p>	<p>The need for devices will grow above pre-COVID-19 levels due to the increased number of procedures to catch up the delay. In some cases, not all missed procedures will be caught up.</p>	<p>Sales volumes will increase as devices are sold to make up for the lack of procedures in early 2020.</p>	<p>The healthcare system will remain overburdened by the number of procedures that are required post COVID-19, but providers will not be overburdened.</p>

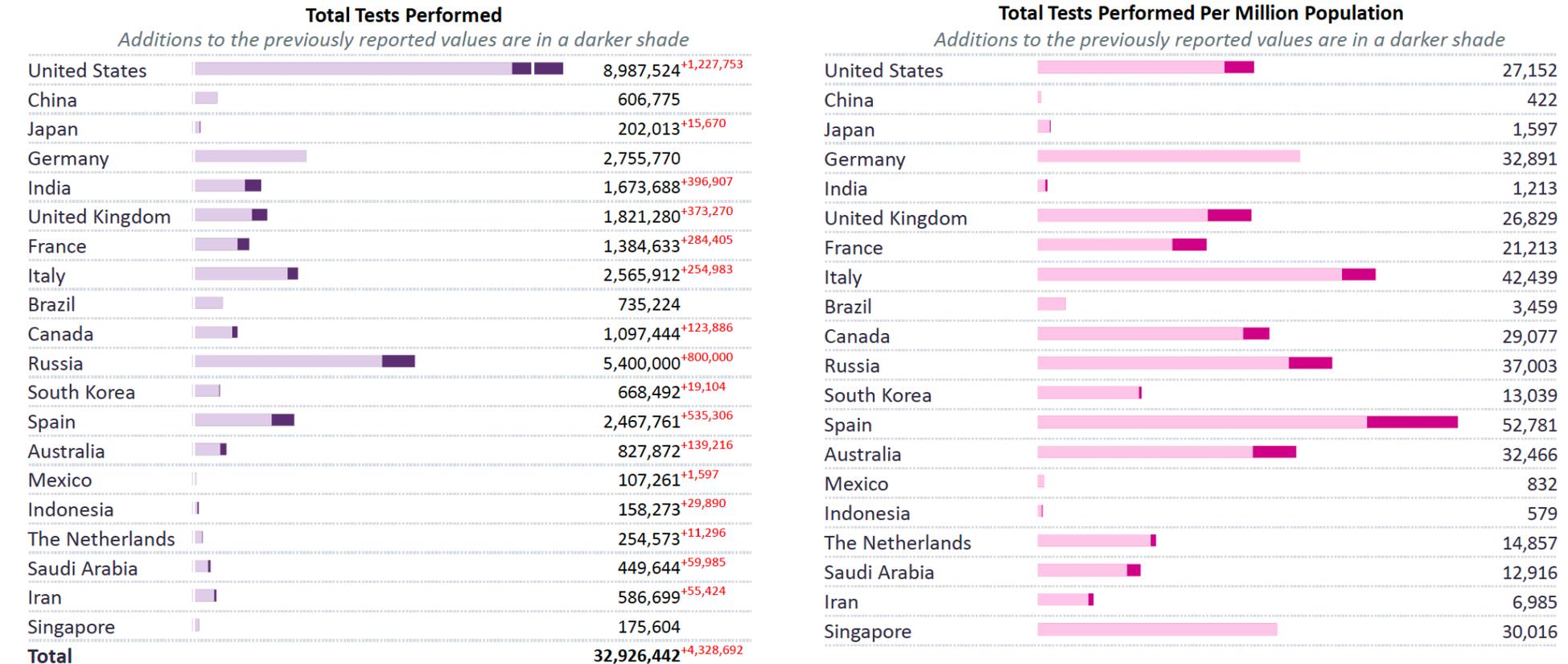
Source: GlobalData

■ Significant negative impact
 ■ Moderate negative impact
 ■ No impact
 ■ Moderate positive impact
 ■ Significant positive impact

Testing for COVID-19 is Gathering Pace In Many Countries

Total Tests and Per Million Population Tests for Top Economies

as of 11 May 2020



Note: The last known test counts taken for China (27-04-2020), Germany(07-05-2020), Brazil (04-05-2020) and Singapore(05-05-2020). Other figures updated between 08-05-2020 and 11-05-2020.

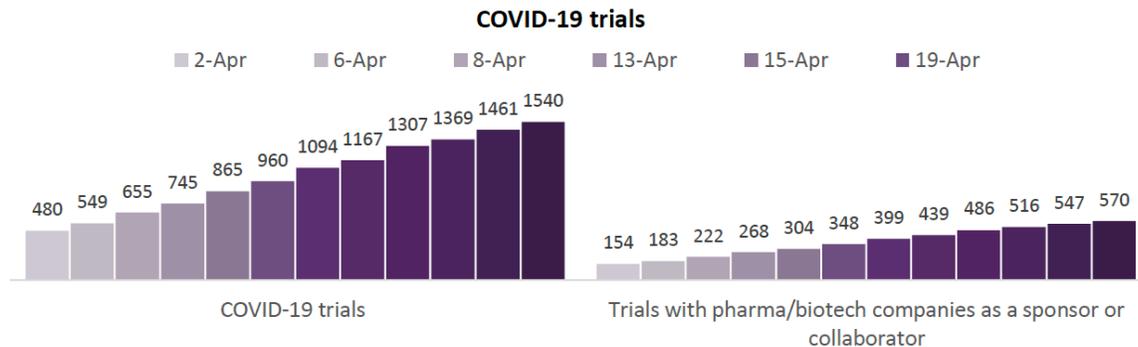
Source: GlobalData Analysis; Government/Ministry of Health websites; Factly.in; Ourworldindata.org

Clinical Investigations of Novel and Existing Drugs Growing Exponentially

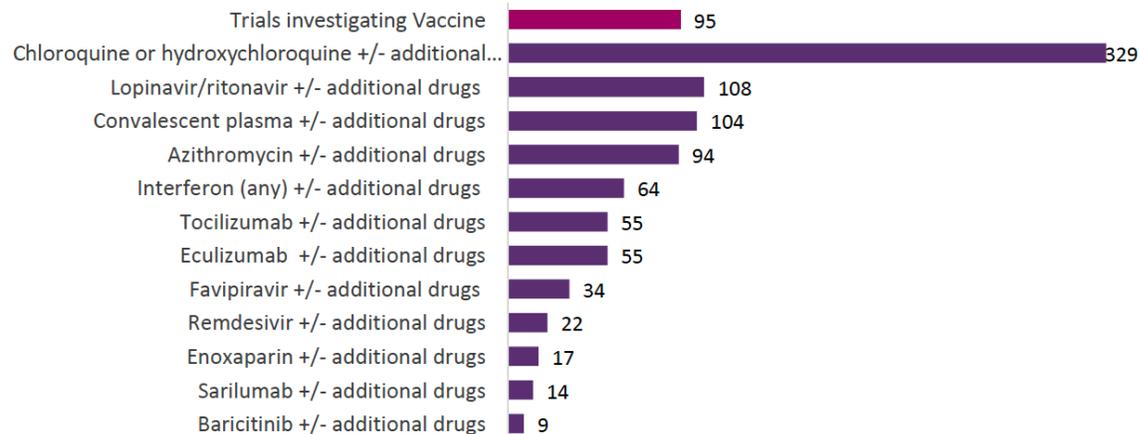
...But Canada is Lagging

Clinical Investigations for Therapeutics and Vaccines for COVID-19 by Numbers

as of 10 May 2020



Investigational drugs in COVID-19 trials

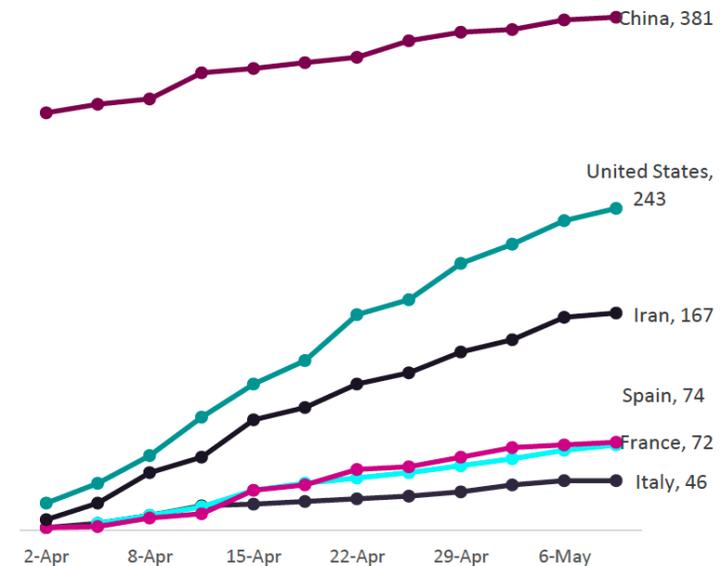


Where is the trials activity?

55 (-2) multinational trials, 1220 (+55) single country trials (remaining trials have not disclosed locations)

Countries with more than 40 COVID-19 trials

Number of trials in the US and Iran are growing at a much higher rate than other countries

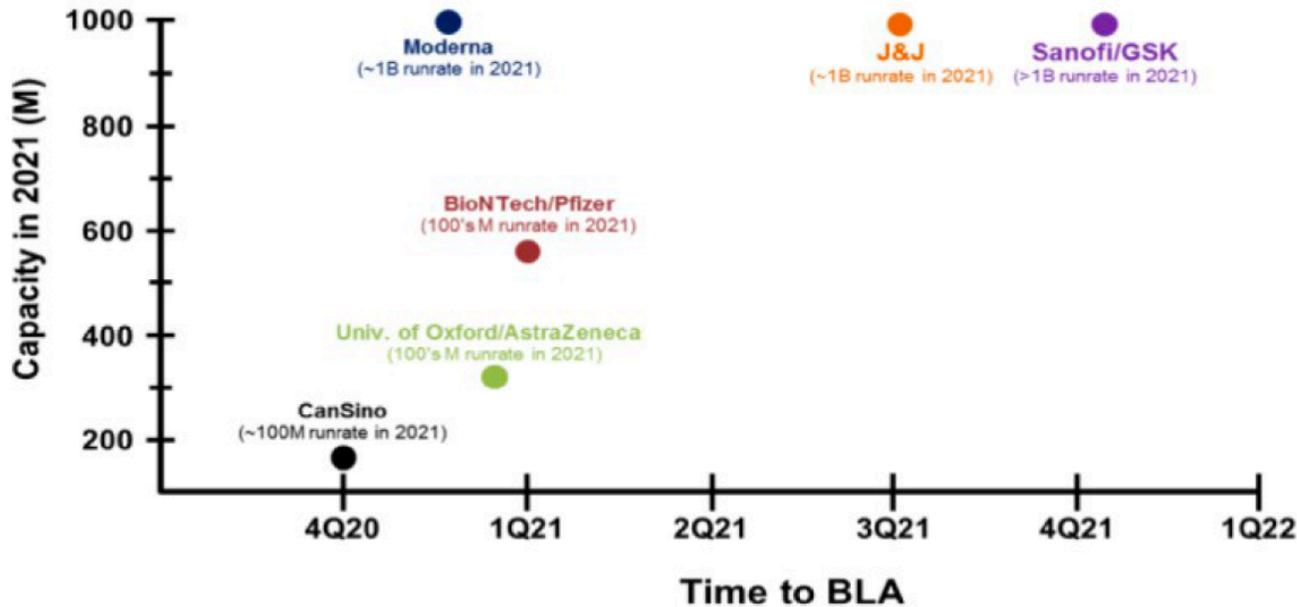


Source: GlobalData Analysis; Client & Subject Matter Expert Interviews; Press Articles; Company Announcements; Verdict Media

110 Vaccine Candidates under Development

Big Pharma Winning the Race for First to Market

Exhibit 1: Potential Vaccine Timeline and Production Capacity



Source: Morgan Stanley Research, Company reports

BLA: Biologics Licence Application

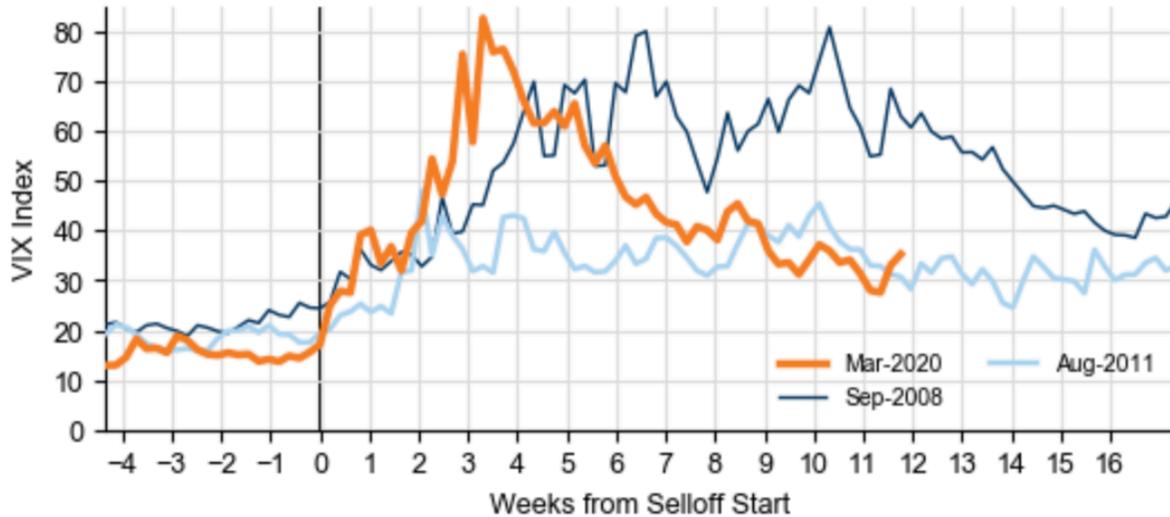
Platform	Type of candidate vaccine	Developer	Coronavirus target	Current stage of clinical evaluation/regulatory status- Coronavirus candidate	Same platform for non-Coronavirus candidates
Non-Replicating Viral Vector	Adenovirus Type 5 Vector	CanSino Biological Inc./Beijing Institute of Biotechnology	COVID-19	Phase 2 ChiCTR2000031781 Phase 1 ChiCTR2000030906	Ebola
RNA	LNP-encapsulated mRNA	Moderna/NIAID	COVID-19	Phase 2 (IND accepted) Phase 1 NCT04283461	multiple candidates
Inactivated	Inactivated	Wuhan Institute of Biological Products/Sinopharm	COVID-19	Phase 1/2 ChiCTR2000031809	
Inactivated	Inactivated	Beijing Institute of Biological Products/Sinopharm	COVID-19	Phase 1/2 ChiCTR2000032459	
Inactivated	Inactivated + alum	Sinovac	COVID-19	Phase 1/2 NCT04352608	SARS
Non-Replicating Viral Vector	ChAdOx1	University of Oxford	COVID-19	Phase 1/2 NCT04324606	MERS, influenza, TB, Chikungunya, Zika, MenB, plague
RNA	3 LNP-mRNAs	BioNTech/Fosun Pharma/Pfizer	COVID-19	Phase 1/2 2020-001038-36 NCT04368728	
DNA	DNA plasmid vaccine with electroporation	Inovio Pharmaceuticals	COVID-19	Phase 1 NCT04336410	multiple candidates

Source: WHO, Morgan Stanley Research

Market is less Volatile than Previous Crisis

Not only did the VIX return to the 20s far faster than it did in the GFC, it returned faster than it did in 2011

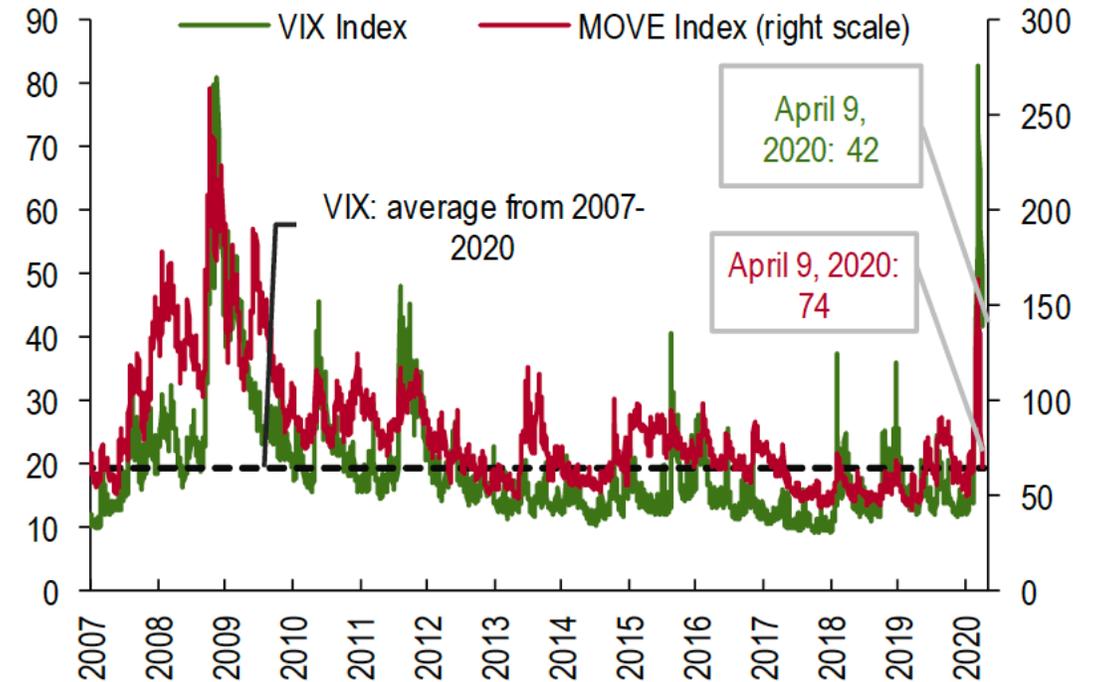
VIX index around key sell-offs



Source: Goldman Sachs Global Investment Research, Bloomberg

Market volatility spiked as COVID-19 spread globally.

2. Volatility Indexes (Level in percentage points)



Sources: Bloomberg Finance L.P.; and IMF staff calculations.

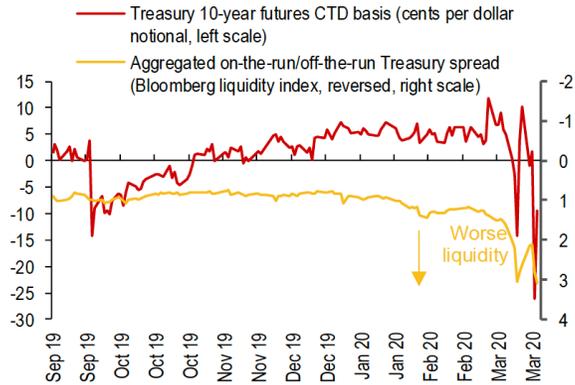
Market Liquidity Recovering with positive Inflows in Biotech

Figure 1.5. Market Liquidity Conditions: Under Strain

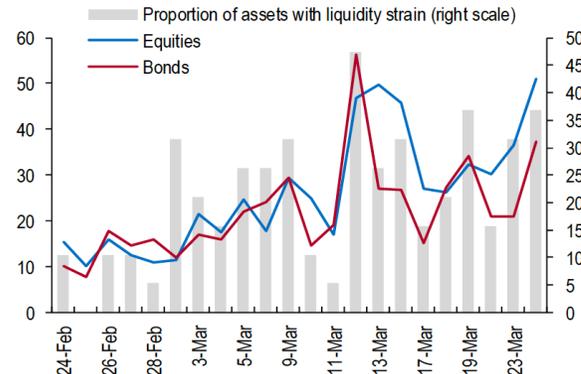
Treasury market liquidity has been impaired, partly due to constrained dealer balance sheets.

Liquidity conditions have deteriorated across a broad range of markets.

1. Aggregated Treasury On-The-Run/Off-The-Run Spread and 10-Year Treasury Futures Basis over Cash Security



2. Average Proportion of Variation Explained by Jumps (Percent)



Sources: Bloomberg Finance L.P.; J.P. Morgan & Chase Co.; and IMF staff calculations.

Note: In panel 1, the Bloomberg liquidity index levels are measured by the root mean squared error between bonds' market yields and theoretical yields based on cubic and exponential spline methodologies. The index can be deemed as a proxy for aggregate on- and off-the-run spreads. In panel 2, the analysis includes equity markets in Brazil, China, euro area, India, Korea, Mexico, Spain, United Kingdom, and United States. Treasury markets in Brazil, France, Germany, India, Italy, Mexico, Portugal, Spain, United Kingdom, and United States. CTD = cheapest to deliver: economically least valuable cash Treasury security, which a seller of futures contract can deliver to a buyer at settlement.

Tracking Cashflows in and out of Biotech Funds

BIOTECH FUND FLOWS

LoncarBlog.com @BradLoncar

Week Ended May 20

\$1.18 B



LAST 5

5/20	+ \$1,180 M
5/13	+ \$1,720 M
5/06	+ \$821 M
4/29	+ \$882 M
4/22	+ \$1,730 M

Data source: Piper Jaffray

Total 2020 Inflows YTD = **\$10.83 billion**

Tech and Biotech Stocks have Recovered from the Initial Blow out

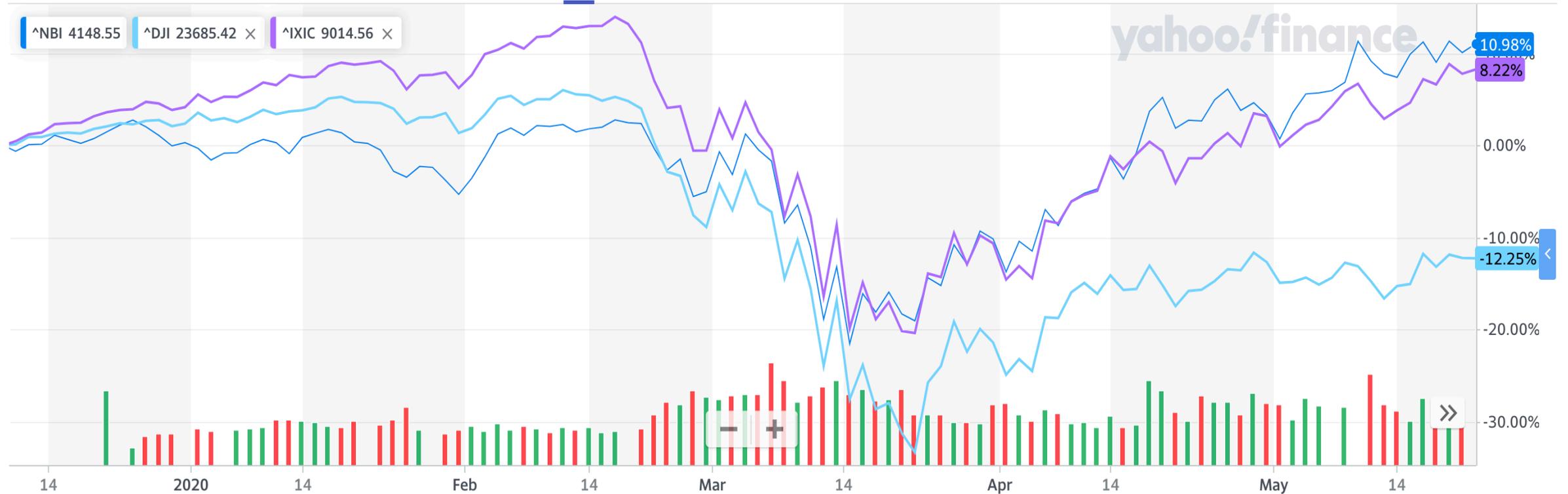
NASDAQ Biotechnology (^NBI) ☆

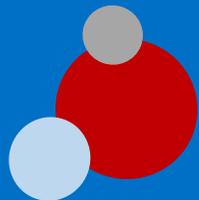
Nasdaq GIDS - Nasdaq GIDS Real Time Price. Currency in USD

4,190.01 +34.47 (+0.83%)

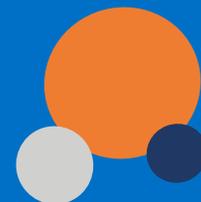
At close: May 22 5:15PM EDT

Indicators Comparison Date Range 1D 5D 1M 3M 6M **YTD** 1Y 2Y 5Y Max Interval 1D Line Draw Settings Share Res





**Antoine Boulanger Piette, PhD,
analyste en capital de
risque, Forbion (Europe)**



VC en sciences de la vie en période de COVID-19 : sous les projecteurs, semble épargné par la crise

Aux USA

- ✓ plus de rondes,
- ✓ des sommes plus grandes
- ✓ les valorisations tiennent le coup
- ✓ les investisseurs joignent de nouvelles compagnies

En Europe

- ✓ plus de rondes,
- ✓ des sommes qui tiennent le coup
- ✓ les valorisations baissent légèrement
- ✓ les investisseurs joignent de nouvelles compagnies

Également, des levées de fonds importantes de VC européens : Life Science Partners, VenBio, Gilde, etc.

*plusieurs de ces processus étaient probablement en préparation avant la COVID-19

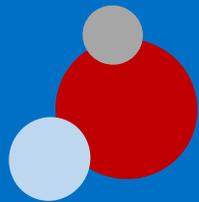
VC en sciences de la vie en période de COVID-19 : sous les projecteurs, semble épargné par la crise

Considérations pour les investisseurs

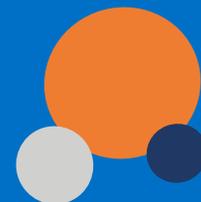
- ✓ focus sur les besoins du portfolio
- ✓ le portfolio conserve le focus sur ses programmes et objectifs
- ✓ focus sur la stratégie d'investissement établie
- ✓ discernement par rapport aux propositions opportunistiques

Répercussions pour les compagnies en levée de fonds

- ✓ adopter un calendrier réaliste compte tenu d'un potentiel ralentissement et accroissement de la compétition pour le capital
- ✓ Les VC requièrent un plan d'action clair pour s'adapter et mitiger les risques : opérationnels, logistiques, financiers, scientifiques, cliniques, etc.



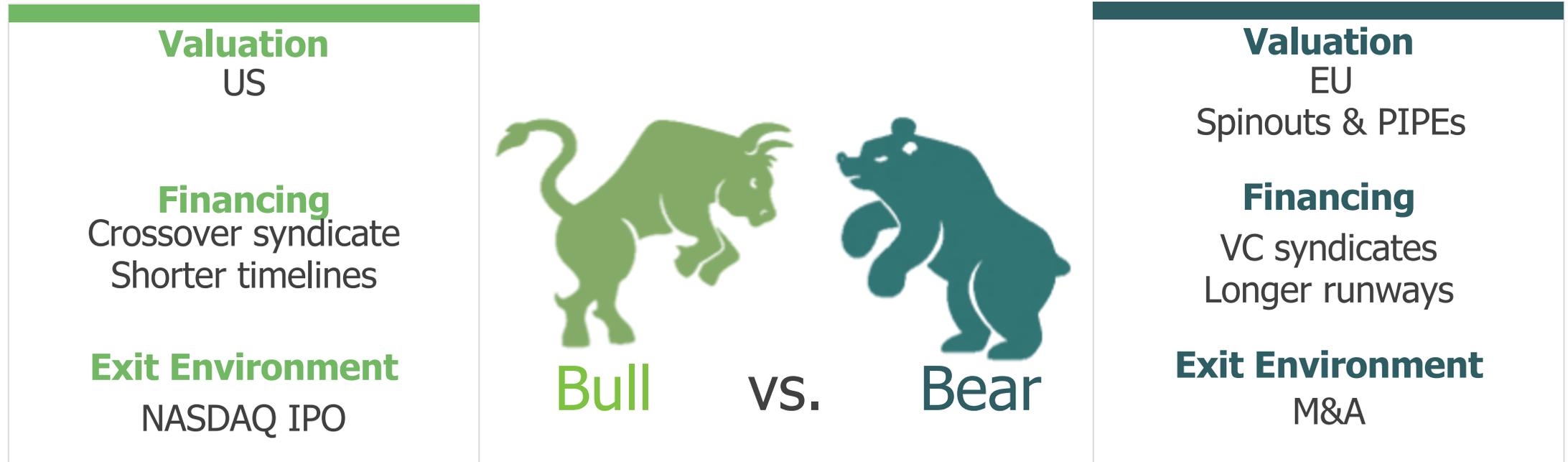
**Maha Katabi, PhD, CFA, associée
principale, Sofinnova
Investments (Californie)**



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Sofinnova has Been Here Before

Diverse Strategy Designed to Generate Consistent Returns



FDA Guidelines to Clinical Trial Sponsors



Primary Goal

- **Keep** patients safe from COVID-19
- **Maintain** compliance with good clinical practice
- **Minimize** risk to trial integrity

Patient Safety



- **Risk/benefit** of trial participants is paramount
- Key issues: **monitoring** active patients and **recruiting** new patients
- Virtual or at-home **dosing, monitoring, and assessments**
- Consult with **Institutional Review Boards (IRBs)** and **Independent Ethics Committees (IECs)** on safe practices

Compliance and Trial integrity



- **Review changes** to endpoints, trial size, study duration or statistics with the FDA virtually
- **Missing information** due to missed site visits and patient discontinuations need to be documented as specifically related to COVID-19
- **Changes to protocol** need to be reviewed with IRBs/IEC as early as possible

2020 Biotech IPOs

2020 Biotech Greater Than \$50MM in Proceeds⁽¹⁾

Figures in \$MM unless otherwise noted

Pricing Date	Issuer	Crossover Investors	Therapeutic Category	Phase Of Lead Asset ⁽²⁾	Time from Last Round	Milestones Achieved	IPO ^{(3) (1) (4)}						Post-IPO Price Performance (%) ⁽⁵⁾				
							Size		Pre-Money		Step-Up		Pricing Outcome	File-to-Offer	Offer-to-1 Day	Offer-to-1 Week	Offer-to-Current
Launch	Pricing	Launch	Pricing	Launch	Pricing												
30-Apr-20	LYRA THERAPEUTICS	Intersouth Partners, Polaris, North Bridge, Perceptive, RA Capital, ArrowMark, Solius	ENT Focused	Phase 2	3 Months	• None to date since IPO	60	64	131 - 150	151	0.9x - 1.0x	1.0x	High End	7	16	NA	4
23-Apr-20	ORIC	Fidelity, OrbiMed, EcoR1, ArrowMark, Casdin, Invus, Foresite	Oncology	Phase 1	10 Months	• Pre-clinical data on ORIC-101 and ORIC-533 • First patient dosed in ORIC-101	75	120	326 - 373	373	1.1x - 1.2x	1.2x	High End	7	58	65	80
7-Apr-20	KEROS THERAPEUTICS	Foresite, OrbiMed, Venrock	Hematology/ Musculoskeletal	Phase 1 Complete	1 Month	• None to date since IPO	75	96	201 - 229	229	1.0x - 1.2x	1.2x	High End	7	26	72	80
2-Apr-20	zentalis	Eventide, Farallon, Perceptive, Redmile, Surveyor, Viking	Oncology	Phase 1/2	4 Months	• FDA clearance of IND for third drug candidate • Hiring of CFO	130	190	424 - 476	476	1.3x - 1.4x	1.4x	High End	6	29	35	85
11-Mar-20	imara	Orbimed, RA Capital, Rock Springs, NEA	Hematology	Phase 2	11 Months	• Positive Interim Phase 2a data for IMR-687 • Positive FDA meeting	66	66	211 - 239	211	1.4x - 1.6x	1.4x	Low End	(6)	(6)	0	50
27-Feb-20	PassageBio	OrbiMed, Vivo	Gene Therapy / CNS	Pre-Clinical	6 Months	• Hiring of key executive team members (CEO, CFO) • Licensed 6th program from UPenn	204	248	552 - 622	624	1.1x - 1.3x	1.3x	High End	6	23	10	6
12-Feb-20	REVOLUTION	Boxer, Cormorant, Deerfield, Fidelity, Vivo, BVF, Casdin	Oncology	Phase 1/2	7 months	• Updated SHP2 Phase 1/2 Data • Initial SHP2 / MEK Combo Data	150	274	653 - 747	796	1.4x - 1.6x	1.7x	\$1 Above	13	70	79	101
6-Feb-20	SCHROEDINGER	Baron, Deerfield, Invus, Laurion	Oncology / Drug Discovery	n/a	15 months	• ~20% growth in software business • Disclosure of internal targets • ~50% Growth in drug discovery	150	232	745 - 855	909	1.2x - 1.4x	1.5x	\$1 Above	13	68	60	184
5-Feb-20	Beam THERAPEUTICS	Redmile, Cormorant	Gene Therapy / CNS	Pre-Clinical	15 months	• Pre-Clinical data across base editing platform • Expansion of base editing targets • Build out of leadership team	100	207	639 - 724	726	0.9x - 1.1x	1.1x	High End	6	10	62	(3)
30-Jan-20	AF CUTIS	Orbimed, Vivo, RA Capital	Skin / Dermatology	Phase 3	4 Months	• End of Phase 2 meeting with FDA • Enrolling 2 Phase 3 trials of lead PDE4 asset • Completed enrollment of LT safety trial	125	183	439 - 497	498	1.3x - 1.5x	1.5x	High End	6	28	46	51
26-Jan-20	BLACK DIAMOND THERAPEUTICS	RA Capital, Perceptive, Invus, Boxer	Oncology	IND Accepted	3 Months	• IND for lead asset (EGFR/HER2) accepted December 2019 • Plans to begin Phase 1/2 in 1H 2020	151	231	412 - 464	471	1.3x - 1.5x	1.6x	\$1 Above	12	108	99	100
16-Jan-20	I-MAB	-	Immunotherapy / Oncology	Phase 3	5 Months	• Dosing of 1st patient in Phase 2 study of CD38 antibody • IND approval in China for Anti-GM-CSF antibody	100	114	653 - 754	703	0.8x - 0.9x	0.9x	Midpoint	4	(11)	8	9
Median							125	190	439 - 497	487	1.2x - 1.4x	1.4x		6	28	60	80

Source: Dealogic, CapitalIQ, Company Filings

Notes:

1. SEC-registered biotech offerings greater than \$50MM (post-shoe)

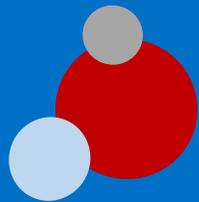
2. Base deal size at launch and full deal size at pricing (including shoe if applicable)

3. Cover commitment represents indications from insiders as well as external strategic, institutional or other parties

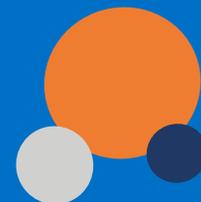
4. Pre-money valuation based on treasury stock method diluted share count

5. Phase of lead asset at pricing

6. Current as of 5/5/2020



Gabriel Douville, chargé d'investissement, OneVentures (Australie)



Comment minimiser l'impact sur votre R&D



Effets de la pandémie



Essais cliniques suspendus

- Moyenne mensuelle: 50
- Avril 2020: 731



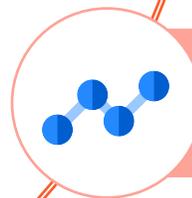
Volontaires et patients à risque

- Danger de symptômes sévères pour plusieurs conditions: Oncologie, maladies auto-immunes, cardiovasculaire etc.



Prolongation imprévue d'études en cours

- Délai d'accès aux sites cliniques
- Désirable si bénéfice additionnel aux patients, mais pas si le risque d'effets secondaires augmente



Variabilité des résultats

- Effets secondaires, efficacité réduite, etc.
- Manque des ressources pour la conduite de l'étude: personnel, espace, équipement



Solutions



Justification éthique

- Bénéfice potentiel > Exposition potentielle au virus



Études à distance (Teletrials)

- Solutions digitales vs visite en clinique (recrutement et suivi)



Modifier les paramètres cliniques

- Mesure des résultats déclarés par les patients

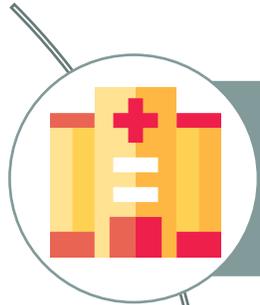


Cibler les endroits moins affectés

- Australie, Corée du Sud, Japon, Suisse, Pays-bas

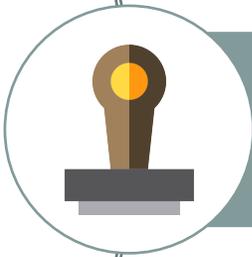
Considérer les pays moins affectés

Exemple: Mesures en place en Australie



Plus bas taux d'infections et de mortalité parmi les 20 plus grandes économies mondiales

- 11 nouveaux cas par jour, 7,000 en tout, 100 décès
- Sites cliniques demeurent accessibles → Sujets ne doivent pas avoir de symptômes ou être arrivés de l'international depuis 14 jours



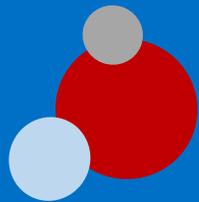
Interactions efficaces avec les autorités réglementaires

- Rapidité vers la clinique → Approbation éthique, 4-8 semaines
- COVID19 → Déviations du protocole de l'étude comme livraison du traitement, suivi des sujets à distance, date de début ou fin, nombre de participants, etc.

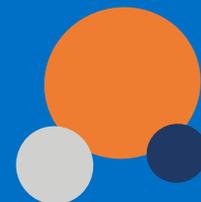


Soutien financier

- Crédits d'impôts pour la R&D → Jusqu'à 43.5%, extension pour les applications en vue des perturbations causées par COVID19
- Bourses → MTP Connect, \$250M
- Capital de risque spécialisé en santé



**Geneviève Guertin, directrice
des investissements, Fonds de
solidarité FTQ, membre du CA
de BIOQuébec**



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Points de discussion

1

Survol des transactions récentes dans notre géographie

2

Covid19 est-il un thème d'investissement?

3

État d'esprit des investisseurs

4

Les fondamentaux n'ont pas changé

Merci d'avoir assisté à ce webinaire

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