

# COVID-19 Update

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Medical Director NEBGH

Monday July 12<sup>th</sup>, 2021

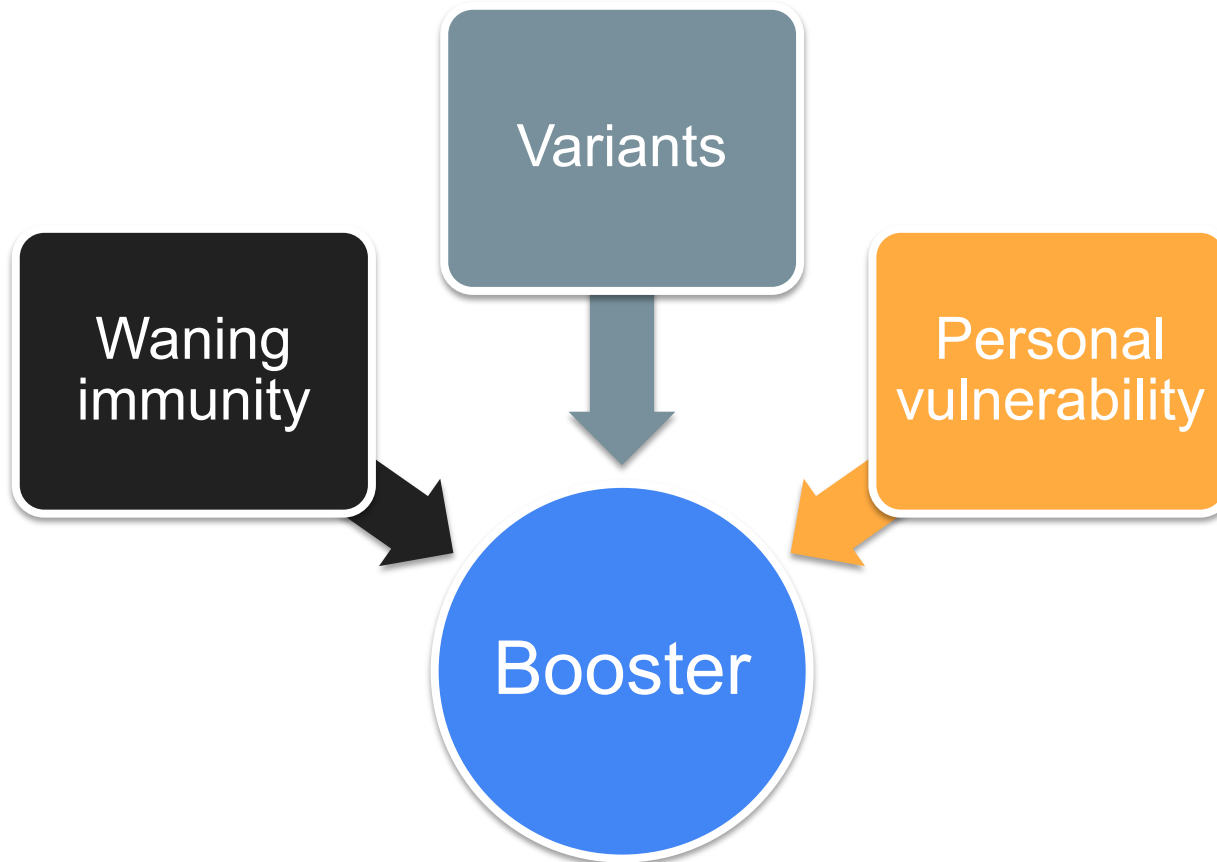
# To Boost or Not to Boost?

- Data that points to:
  - Signs of longer-term immunity from mRNA vaccines especially in people who had COVID and then were later vaccinated<sup>1</sup>
  - Increasing breakthrough infections from the Delta variant and/or waning immunity<sup>2</sup>



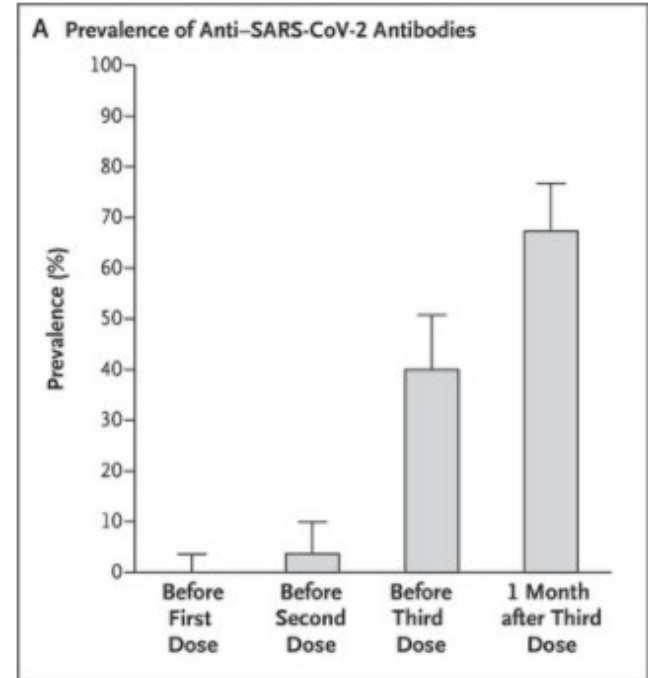
1. <https://www.nature.com/articles/s41586-021-03738-2>
2. <https://www.haaretz.com/israel-news/israel-pfizer-vaccine-less-effective-preventing-delta-covid-variant-infection-1.9971842>

# Three key factors that might determine the need for a booster



# What do we know

- That a 3<sup>rd</sup> booster shot significantly improved the immune response in solid organ transplant patients<sup>1</sup>
  - France, Israel and UK implemented or planning to implement boosters for these groups

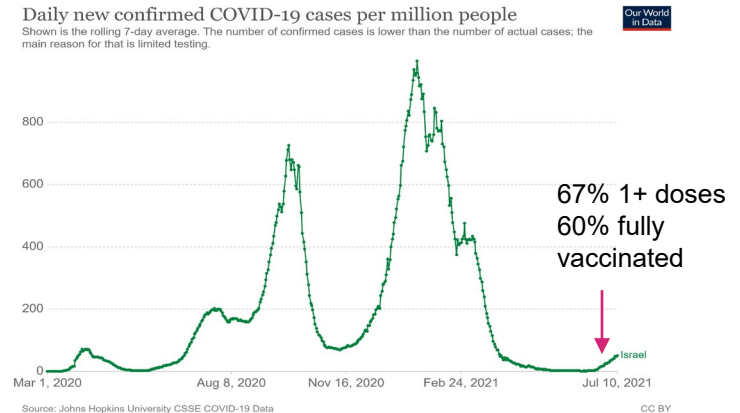


# Vaccines and the Delta Variant

- UK study<sup>1</sup>: Prevention of moderate/severe disease

	2 Doses Alpha	2 Doses Delta	1 Dose Alpha	1 Dose Delta
AZ	66.1%	59.8%	51.1%	33.5%
Pfizer	93.4%	87.9%	51.1%	33.5%

- Israel data<sup>2</sup>:
  - Israel's Ministry of Health reported that Pfizer's protection against COVID-19 infection from delta has fallen to 64%, down from 91.2% efficacy in March.
  - Pfizer still 93% effective at preventing hospitalizations and severe symptoms.



1. <https://www.medrxiv.org/content/10.1101/2021.05.22.21257658v1>  
 2. <https://www.haaretz.com/israel-news/israel-pfizer-vaccine-less-effective-preventing-delta-covid-variant-infection-1.9971842>

# Other Reports

- J&J reported<sup>1</sup>:
  - Only 2% breakthrough infections were severe
  - Increasing data that vaccine works against Alpha and Delta (better than against the beta variant<sup>2</sup>)
- Indonesia<sup>3</sup>:
  - Of 1000 medical personnel deaths 12+ had been fully vaccinated with the Sinovac vaccine
  - Planning a booster with 1 shot of Moderna
- Seychelles<sup>4</sup>:
  - 6 people fully vaccinated with AstraZeneca's vaccine have died
- Sinovac<sup>5</sup>:
  - Thailand, Bahrain and the United Arab Emirates have announced they will give a booster dose to those vaccinated with the Sinovac vaccine

1. <https://www.samrc.ac.za/media-release/vast-majority-breakthrough-infections-vaccinated-health-workers-are-mild>

2. <https://www.inj.com/positive-new-data-for-johnson-johnson-single-shot-covid-19-vaccine-on-activity-against-delta-variant-and-long-lasting-durability-of-response>

3. <https://www.straitstimes.com/asia/se-asia/indonesia-to-give-medics-covid-19-booster-jab-after-string-of-deaths>

4. <https://fortune.com/2021/07/02/fully-vaccinated-deaths-covid-seychelles-sinopharm-covishield-astrazeneca/>

5. <https://fortune.com/2021/07/10/covid-vaccine-booster-shot-sinovac-sinopharm-astrazeneca-delta-variant/amp/>

# CDC and FDA Current Advice

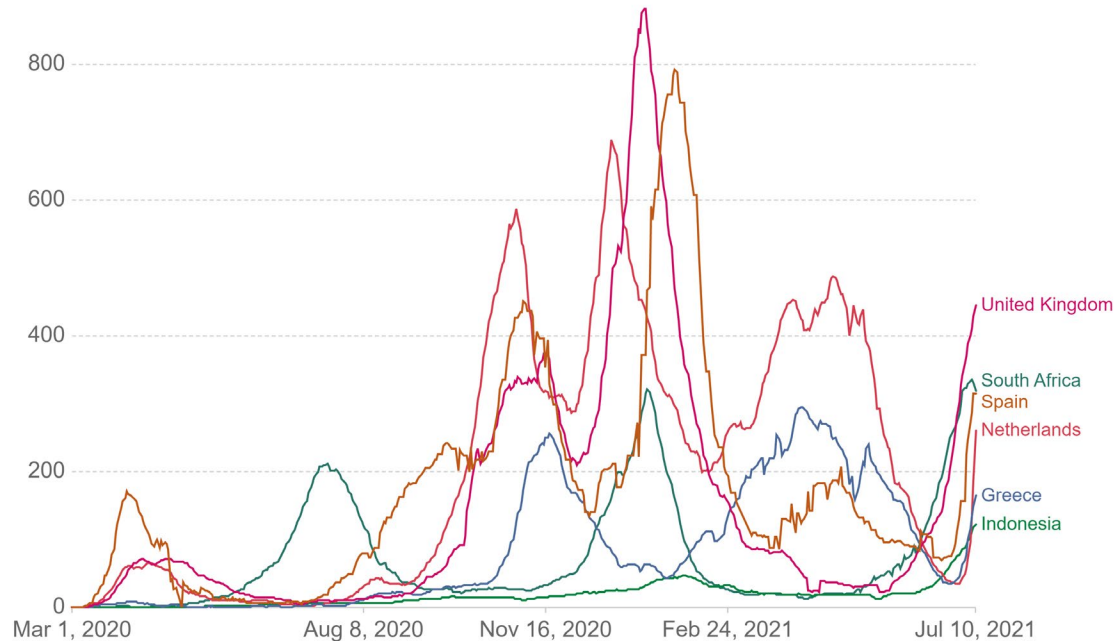
- People who are fully vaccinated are protected from **severe disease** and **death**, including from the variants currently circulating in the country such as Delta.
- People who are **not vaccinated** remain at risk.
- Virtually all COVID-19 **hospitalizations and deaths** are among those who are **unvaccinated**.

# Delta on the rise

## Daily new confirmed COVID-19 cases per million people

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.

Our World  
in Data



Source: Johns Hopkins University CSSE COVID-19 Data

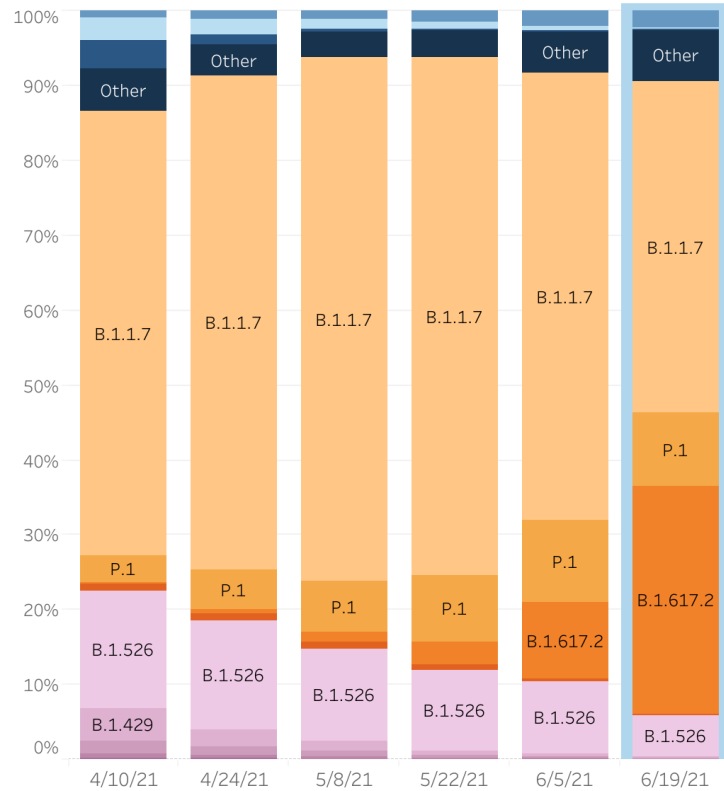
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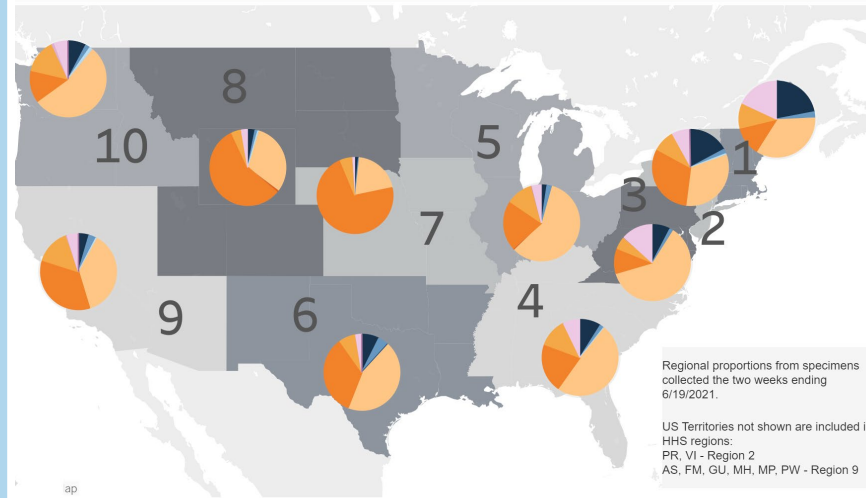


Source: Financial Times analysis of data from the Johns Hopkins CSSE.  
Data updated July 11 2021 4.53pm BST. Interactive version: [ft.com/covid19](https://www.ft.com/covid19)

## United States: 3/28/2021 – 6/19/2021



## United States: 6/6/2021 – 6/19/2021



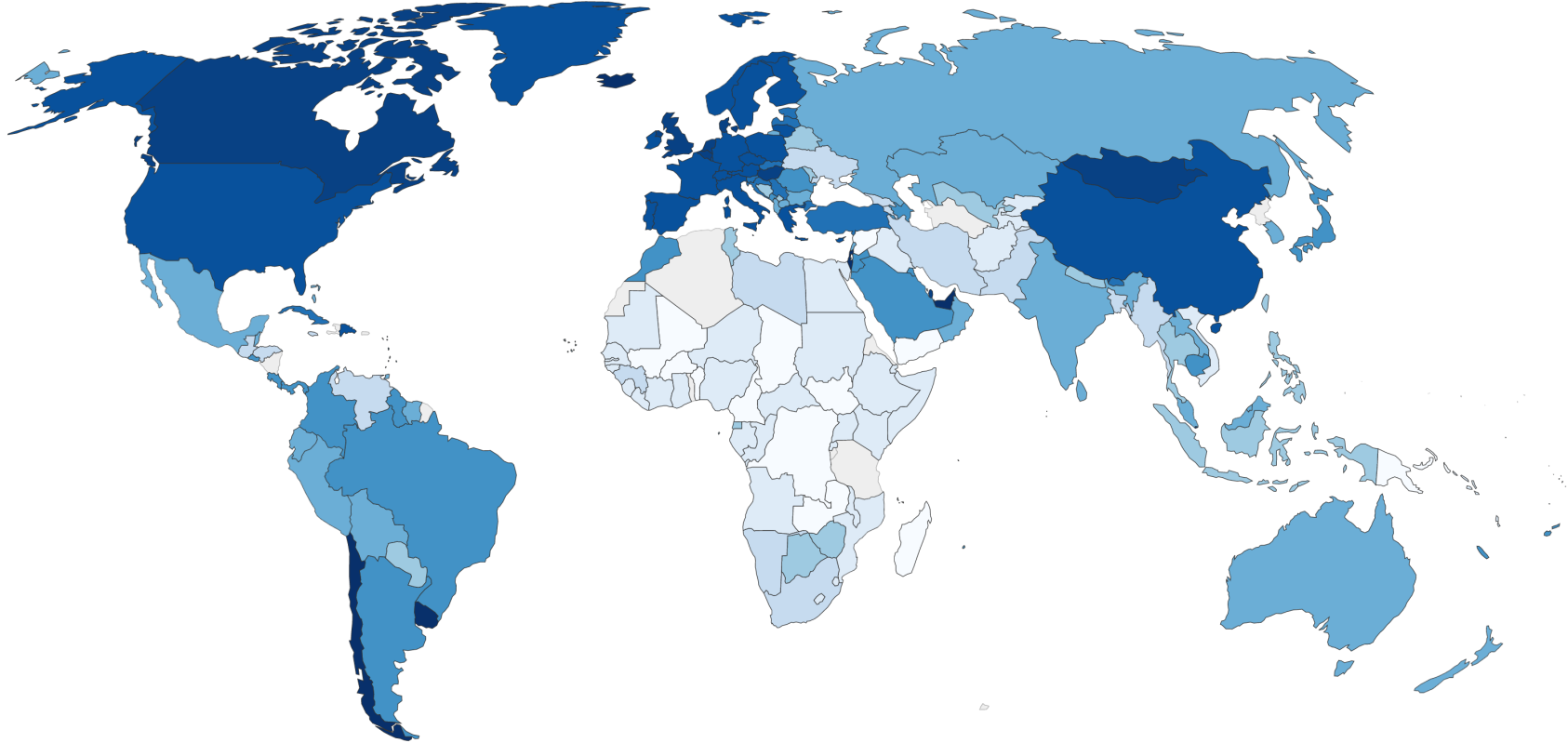
Updated July 6, 2021

# Ethical Issues



# COVID-19 vaccine doses administered per 100 people

For vaccines that require multiple doses, each individual dose is counted. As the same person may receive more than one dose, the number of doses per 100 people can be higher than 100.



# Averting Future Vaccine Injustice

- High-income countries have secured a majority of the world's vaccine supply - >2x their populations
- Advantages of sharing vaccines:
  - Save lives of frontline workers and vulnerable people
  - Helping to end the pandemic
  - Reducing the risk of emergence of new and dangerous variants
  - Estimated generating an additional \$9 trillion for the global economy with trade, travel, and work fully restored everywhere

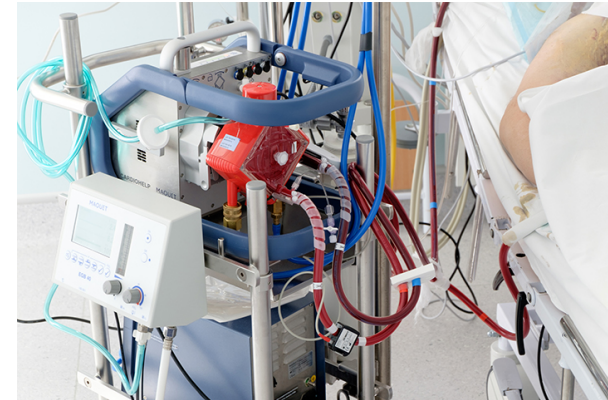
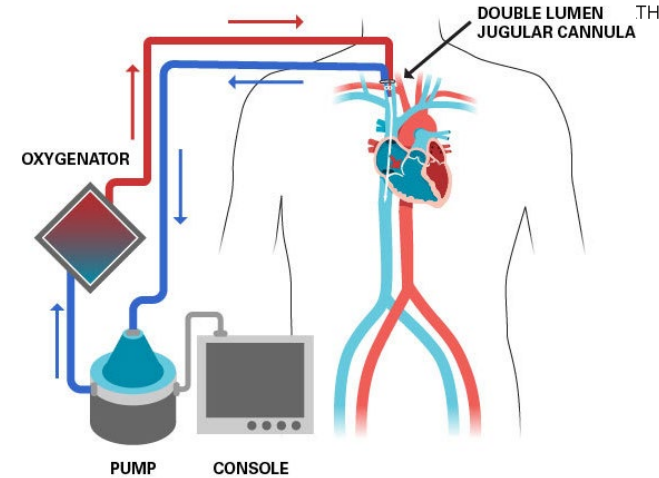


# Averting Future Vaccine Injustice

- Diversifying the vaccine supply chain:
  - Regional manufacture
  - No barriers for raw materials
  - Temporary suspension of international IP rules on Covid-19 countermeasures (including vaccines, drugs, diagnostics, and other medical equipment)
- WHO floated idea of a “Pandemic Treaty”:
  - Governments should commit to increasing long-term public investment in both research and technology development
  - If governments fund vaccine development, then IP not owned by Pharma and price of vaccine should be fair and affordable
  - Governments commit to buying \$45 billion worth of these products before approval
  - Governments could make their funds go further by pooling them through regional or global vehicles such as Coalition for Epidemic Preparedness Innovations (CEPI)
  - International rules for ensuring rapid sharing of pathogen samples and related data

# ECMO

- Treatment for the most severely ill COVID patients
- Of the millions ill with COVID-19 only 8,000 patients have received ECMO - 5,000 in the US
- ECMO:
  - Limited hospitals
  - Labor intensive
  - Usually, 4-5 days but for COVID weeks
- Most hospitals have age and other medical criteria but:
  - Advocacy/who you know
  - Once on – how long? Who decides when to take off?



# WIRTSCHAFTSBLATT

Abendblatt Nr. 433 — Seite

**Kaschau-Oderberger Eisenbahn**  
durch Kapitalauszahlung abgefunden

gesetzblatt II Seite 322 (Nr. 34) vom 20 August ist  
ung zwischen dem Deutschen Reich, der Slowa-  
lik und dem Königreich Ungarn über die Aktien-  
Kaschau-Oderberger Eisenbahn“ veröffentlicht, die  
Tage ist die

Kaschau-Oder-  
Eisenbahn

## Berliner Börse

ziemlich schwach und im Verlauf nicht erholt  
a, 26. Aug. Die Börse war heute ausgesprochen schwach.  
gestern angedeutet, sind Maßnahmen anbringt. Advor-  
Materialmangel an der Börse etwas ab. Auf 4750 / Wiesan  
von, daß der jüdische Aktienbesitzer, Langgasse 4, 7  
Zwar kommt das Material gerade in Bismarck-Straße 34,  
an den Markt, aber die Meldung über Material, 616, 34,  
doch weitgehend beeinflusst. Markt 12, Kurs 200 27,  
Gerade bei den bevorz. W. S. Engelhardt, Hermann-  
zahlbaren Abschlägen von 10, Straße 10, Kurs 266 40,  
u. a. bei Salzdettfurth, 10, 10, 10, 10, 10, 10, 10, 10,  
Rheinmetall u. a.

Charlottenburg 1291 1/2 - 9

419 7

10 Biennia



# Long COVID test

- Blood test maybe available in 6 months to diagnose long-COVID
- Test looks for autoantibodies





# Questions

**Next Monday – Special Edition with Virgin Pulse  
Advisor Dr. David C. Batman**