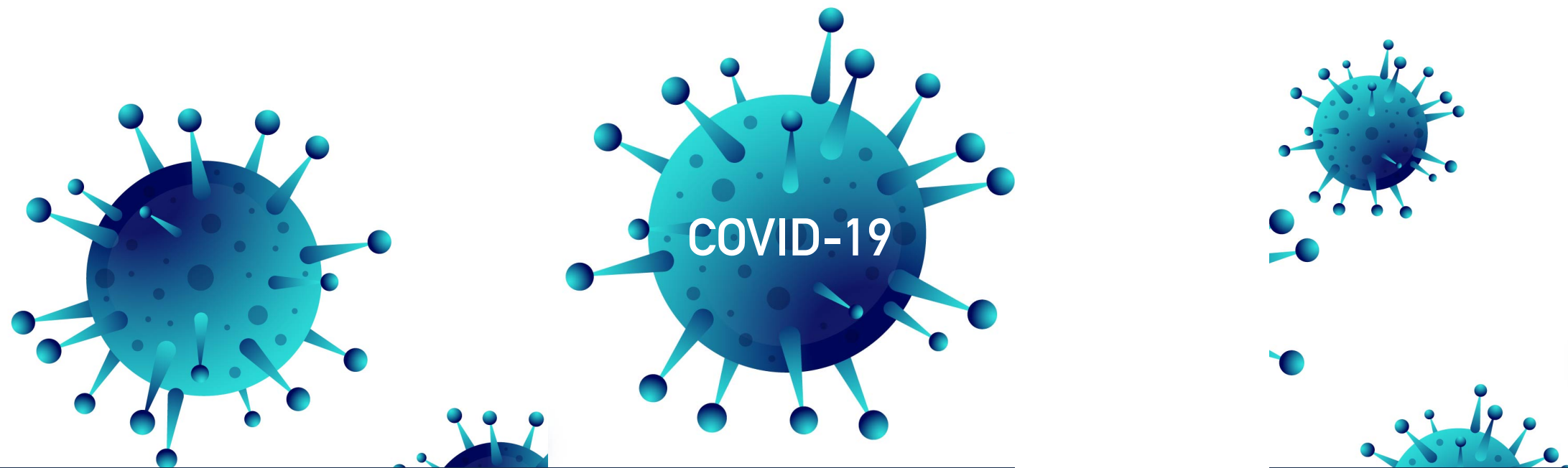
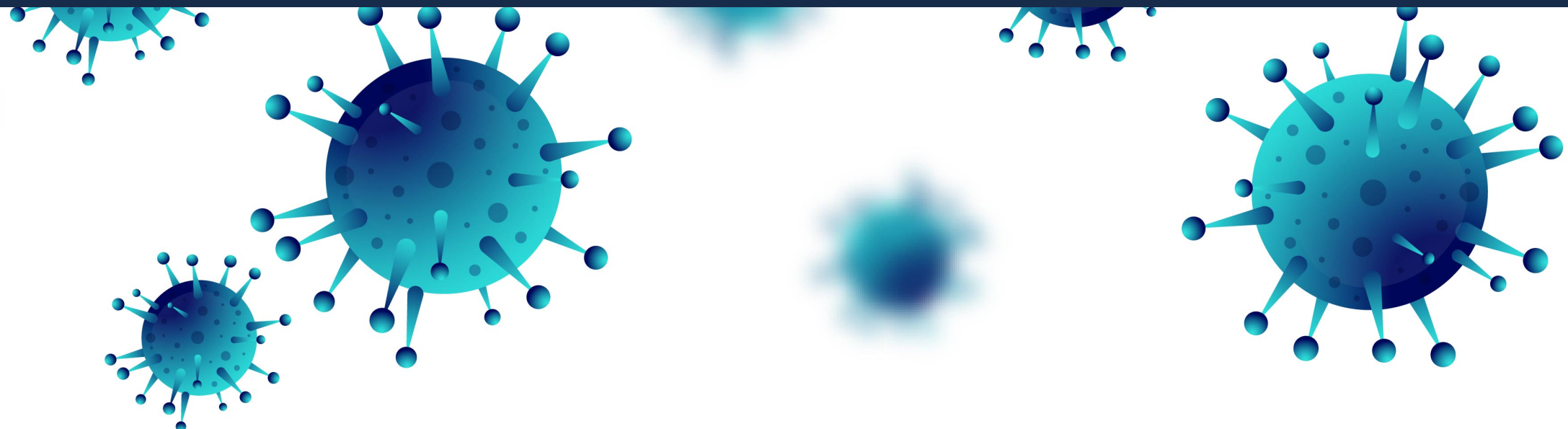


# INTEGRATIVE AND FUNCTIONAL COVID-19 NUTRITION CORE COURSE



## FIRST LINE PREVENTION: ADDITIONAL RESOURCES



Fiona McKiernan, MS, RDN, IFMNT

Integrative and Functional Medicine Nutritionist

Genomic Medicine Clinician

## JOHNS HOPKINS COVID-19 MAP

<https://coronavirus.jhu.edu/map.html>

## WORLDOMETER CORONAVIRUS CASES

<https://www.worldometers.info/coronavirus/>

## INFORMATION IS BEAUTIFUL COVID-19

<https://informationisbeautiful.net/visualizations/covid-19-coronavirus-infographic-datapack/>

## SOCIAL DISTANCING SCOREBOARD

<https://www.unacast.com/covid19/social-distancing-scoreboard>

# STAY PROPERLY INFORMED - CHECK OUT YOUR LOCAL RESOURCES



**EMERGENCY**

**Coronavirus disease (COVID-19) pandemic**

- COVID-19 quick links
- Advice for the public
- Advice for health workers
- Country & Technical Guidance
- Situation updates

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

## COVID-19 (Coronavirus)

[Stay at home.](#)

On this page you can view the latest information on how Ireland is responding to cases of COVID-19.

The latest information, advice and guidelines will be published here and updated daily.

<https://www.gov.ie/en/campaigns/c36c85-covid-19-coronavirus/>



### Novel Coronavirus (COVID-19) Resources

Coronavirus disease 2019 (COVID-19) has caused widespread disruption in our daily lives—and it will likely continue to do so. But even in the face of such uncertainty, it is possible to support your immune system, maintain a healthy lifestyle, and find opportunities to cultivate joy and resilience. Here's the information and resources you need to prepare yourself and your family for COVID-19.

<https://chriskresser.com/novel-coronavirus-covid-19-resources/>

medcram.com

MED CRAM

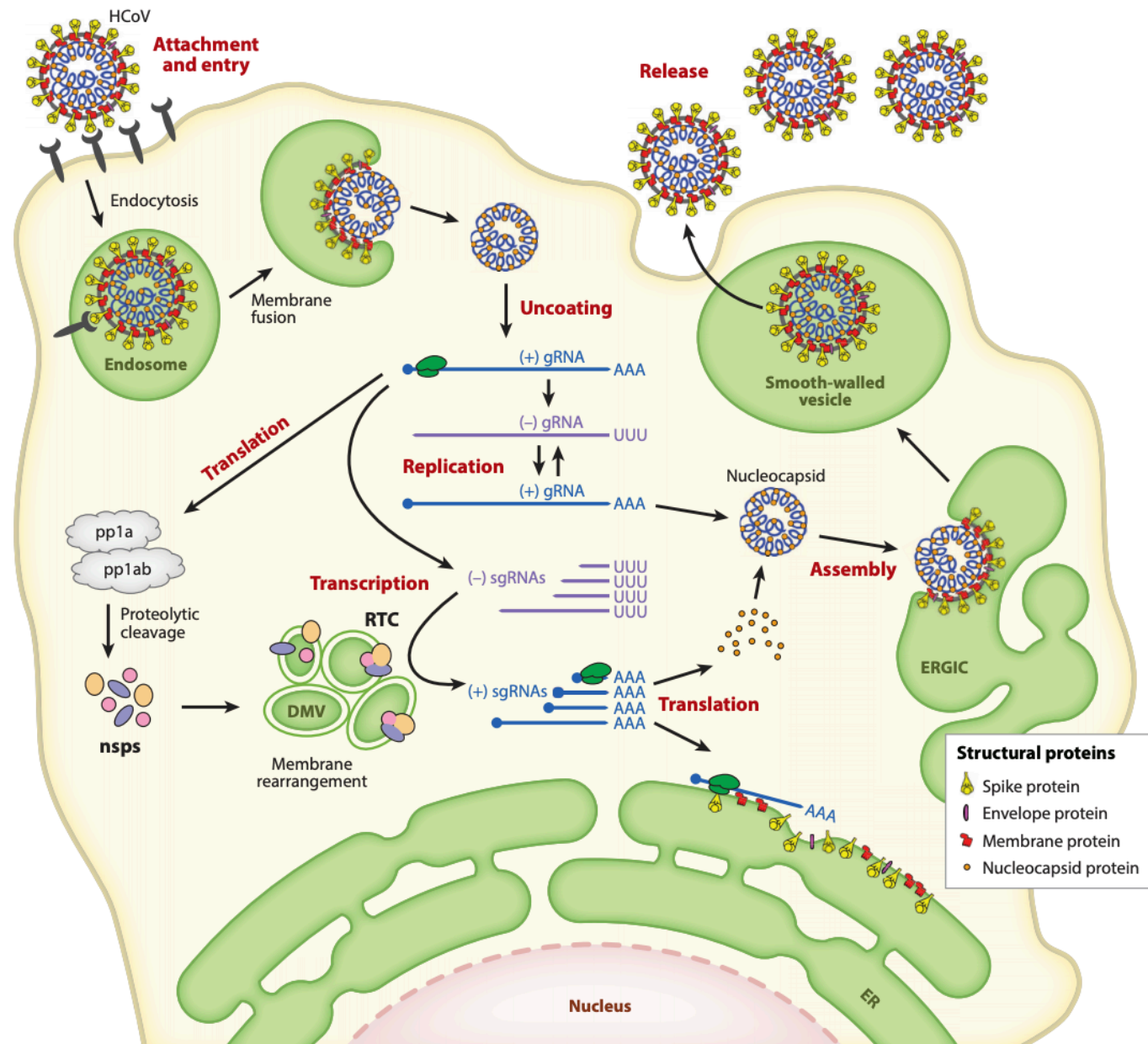
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By World-Class Instructors

<https://www.medcram.com/collections?category=covid-19-SARS-CoV-2>

# THE REPLICATION OF HUMAN CORONAVIRUSES



Annu. Rev. Microbiol. 2019.73:529-557. Downloaded from www.annualreviews.org. Access provided by 2601:8c3:8280:7750:9dae:2e5c:6975:e058 on 03/21/20. For personal use only.

**Figure 3**

Replication cycle of human coronaviruses (HCoVs). Schematic diagram showing the general replication cycle of HCoVs. Infection starts with the attachment of HCoVs to the cognate cellular receptor, which induces endocytosis. Membrane fusion typically occurs in the endosomes, releasing the viral nucleocapsid to the cytoplasm. The genomic RNA (gRNA) serves as the template for translation of polyproteins pp1a and pp1ab, which are cleaved to form nonstructural proteins (nsps). nsps induce the rearrangement of cellular membrane to form double-membrane vesicles (DMVs), where the viral replication transcription complexes (RTCs) are anchored. Full-length gRNA is replicated via a negative-sense intermediate, and a nested set of subgenomic RNA (sgRNA) species are synthesized by discontinuous transcription. These sgRNAs encode viral structural and accessory proteins. Particle assembly occurs in the ER-Golgi intermediate complex (ERGIC), and mature virions are released in smooth-walled vesicles via the secretory pathway.