

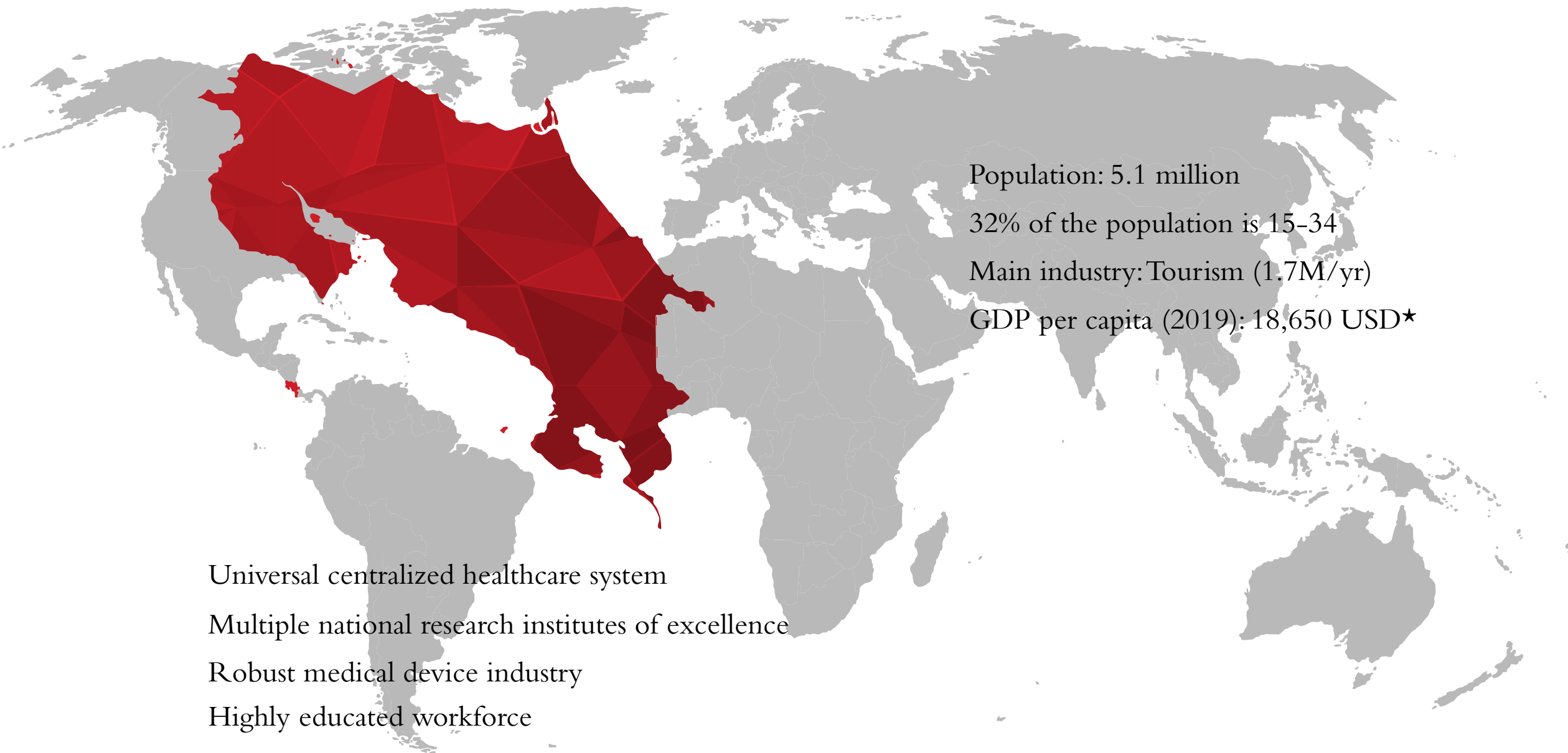


GCCW Panel Presentation

The Costa Rican response to the pandemic

And the importance of international cooperation

Christian Marín-Müller, MS, PhD
CEO, Speratum
San José, Costa Rica



Population: 5.1 million

32% of the population is 15-34

Main industry: Tourism (1.7M/yr)

GDP per capita (2019): 18,650 USD★

Universal centralized healthcare system

Multiple national research institutes of excellence

Robust medical device industry

Highly educated workforce

★ Estimated data for 2020 by IMF

347



Teleworking
Borders closed
50% occupancy
School/church closure
Isolation orders
Vehicular restrictions

March
삼월

642



Specialized COVID
care hospital opens

Lockdown

Telephone help
service

Smart reopening plan

April
사월

1,056



50% occupancy
reopening

Masks recommended
in public transport

Social bubbles

May
오월

3,459



Community
transmission
declared

Vehicular
restrictions per
region

Masks mandatory
in public

June
유월

17,820



Airports
reopened

Vehicular
Restrictions

Mask
mandatory
Indoors

Wastewater virus
detection

July
칠월

48,780



Antivirals

Equine
trial

August
팔월

코스타리카의 국가 관심 사업, 생명 공학

LIFE SCIENCES IS OF COSTA RICA'S NATIONAL INTEREST

2012년 2월 3일 금요일 공식 일간지 더 가제트에 게시된 행정 칙령 제 36952호에서는 다음과 같이 언명한다.:

Executive decree N° 36952 (published on Friday, February 3, 2012, in the official daily The Gazette) declares:

“우리 나라에서의 의료 및 생명 공학 기기의 연구, 개발 및 생산은 공공 및 국가의 이익이 될 것이다.”

“Research, development, and production of Medical and Biotech Devices on national territory to be of public and national interest”







TERUM
B

Negative for
HBsAg/ Anti-HIV/
Syphilis

NAT non-reac
HIV-1 RNA (gro
HIV-2 RNA/ HE

No unexpected

TERUM
B

Negative for :
HBsAg/ Anti-HIV/ Ar
Syphilis

NAT non-reac
HIV-1 RNA (group
HIV-2 RNA/ HBV

No unexpected

TERUM
B

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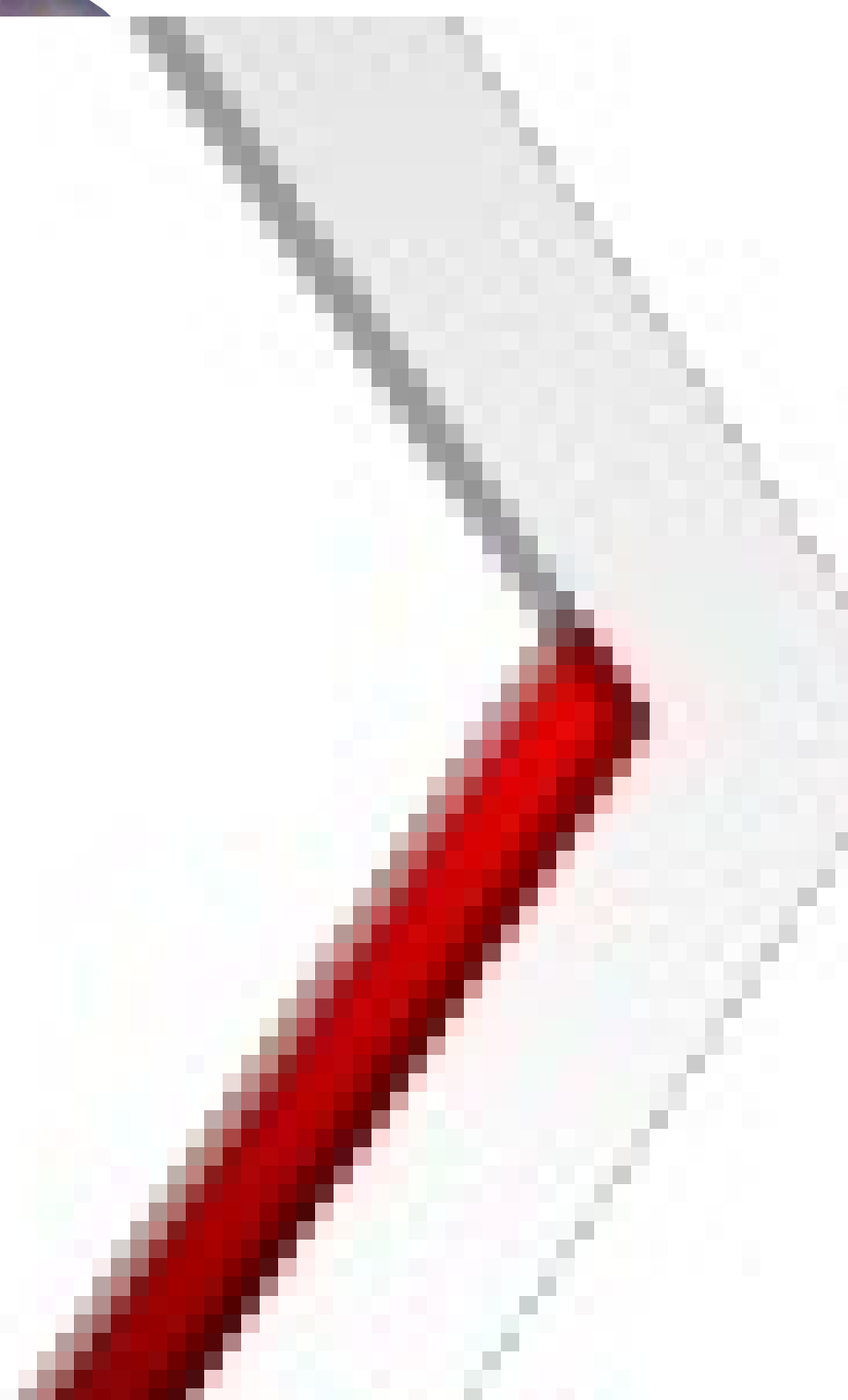


INSTITUTO
CLODOMIRO
PICADO

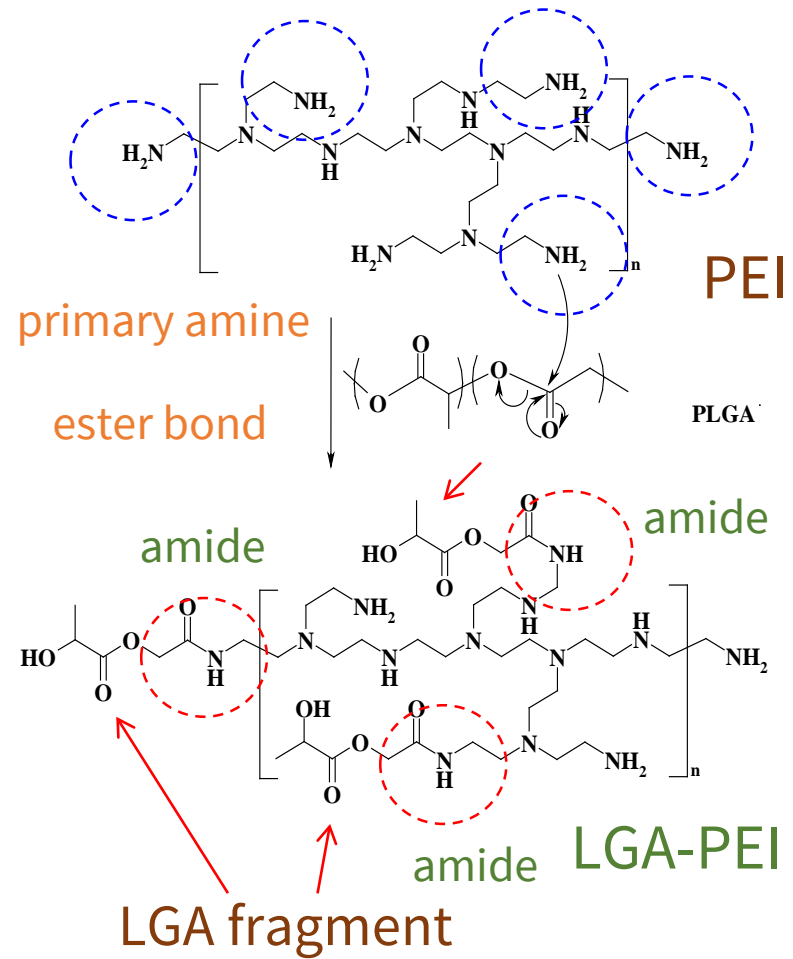




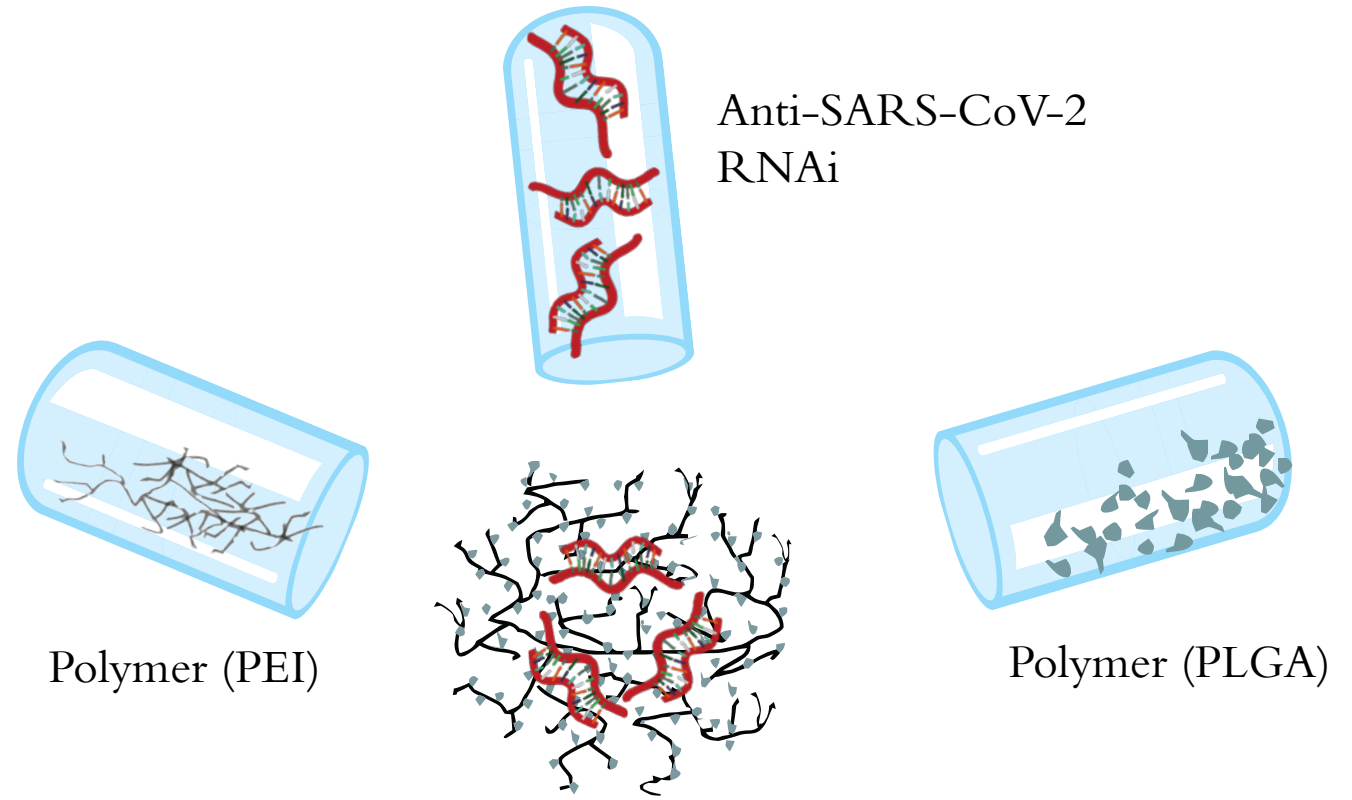
Spera
Delivering hope th



Nucleic acid drug delivery

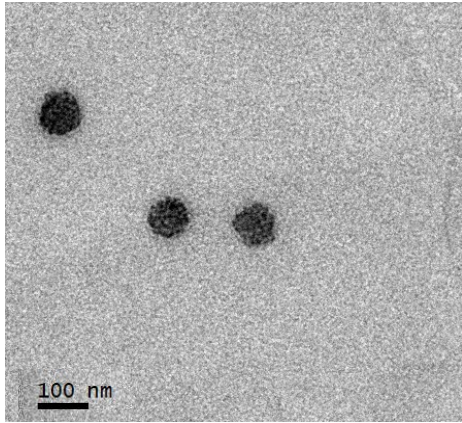


Liu, J. et al. *Nanomedicine* 11, 1971–1991

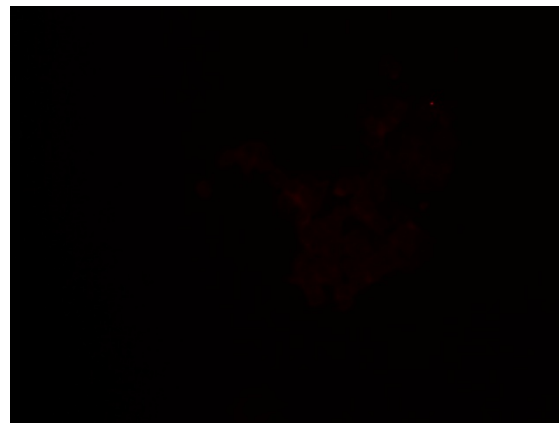
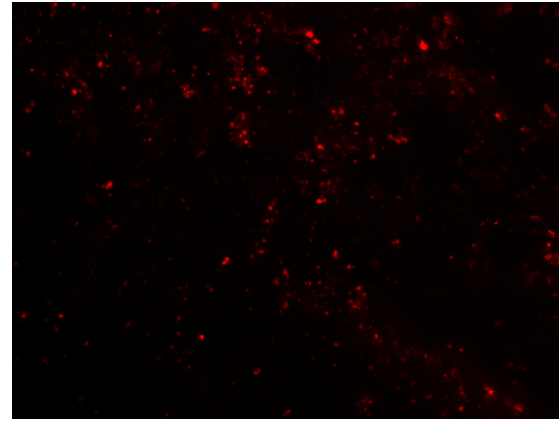
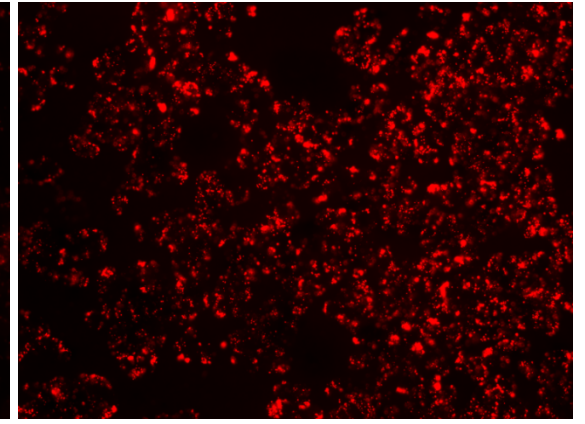


Therapeutic nanoparticles

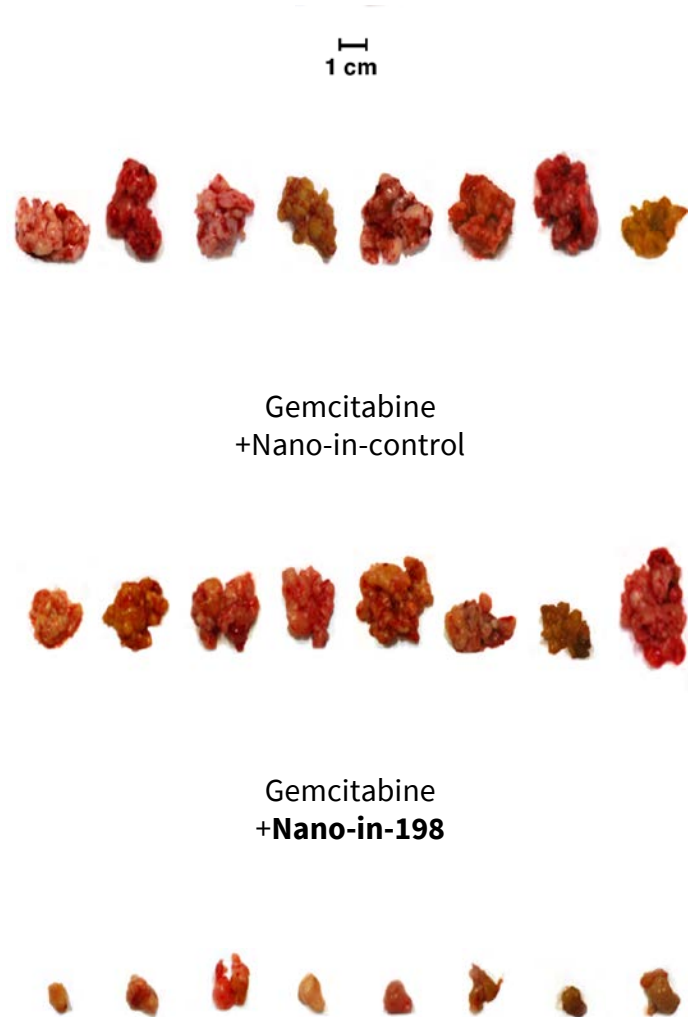
Electron microscopy



PANC1 cells transfected with fluorescent RNAi (24 hrs post-transfection)

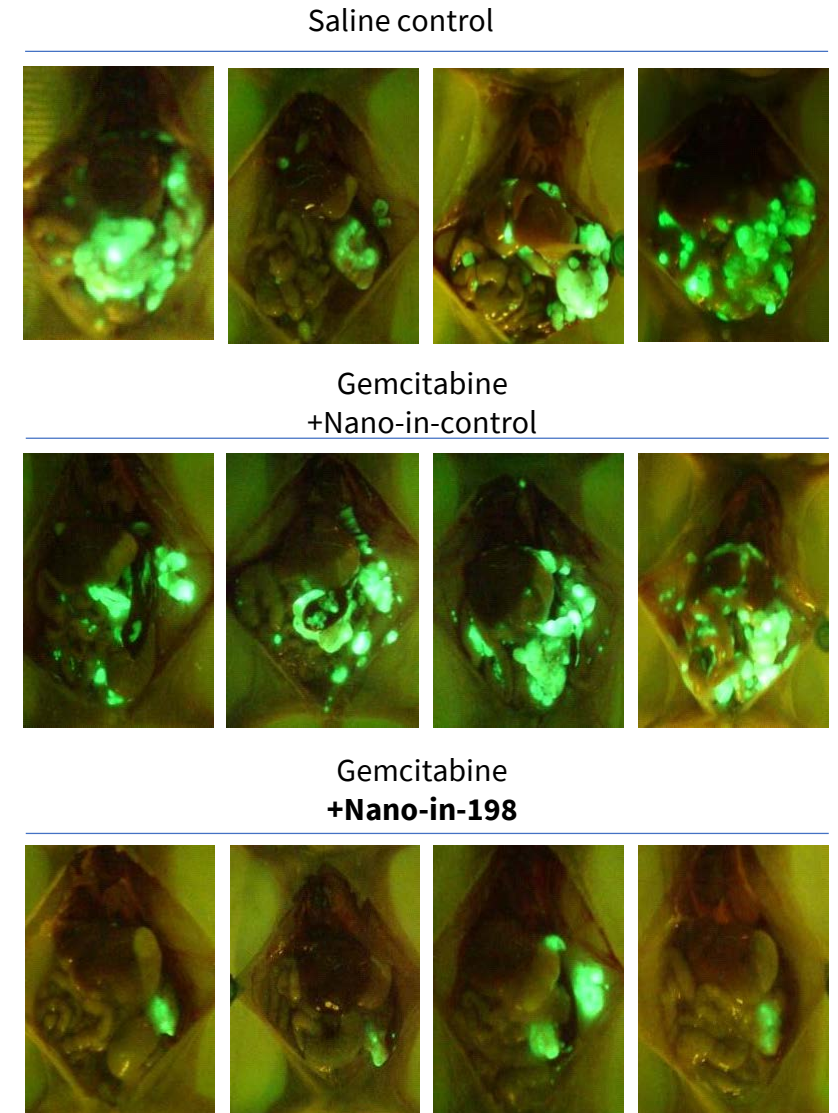
1 mg RNAi
No vehicle1 mg RNAi
Lipofectamine 20001 mg RNAi
Nano-in

Primary tumor size

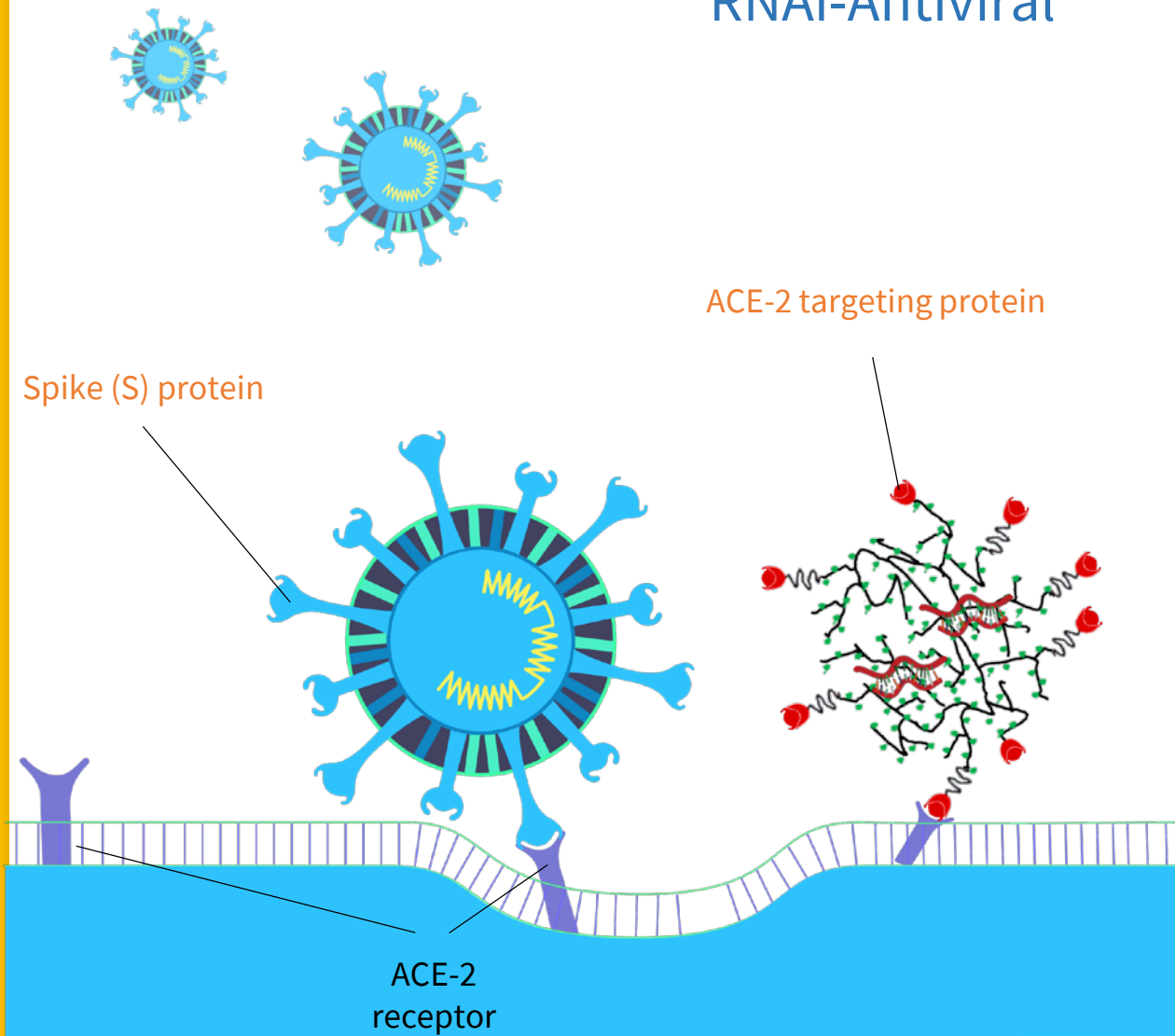


Pancreatic cancer xenografts

Metastasis (fluorescent tumor cells)



Anti-SARS-CoV-2 RNAi-Antiviral



Collaboration is critical for success

Coronavirus response

- Learning from S. Korea's highly successful response (testing, ICT adoption)
- Regulatory frameworks

Tech transfer and development

- Team-up with K-technology companies through co-development/license agreements

Growth capital

- Access to funding from S.Korea VC/PE and government sources to reach the next level of development

