

COVID- 19 second and third waves in Greece: experience of a molecular diagnosis reference laboratory

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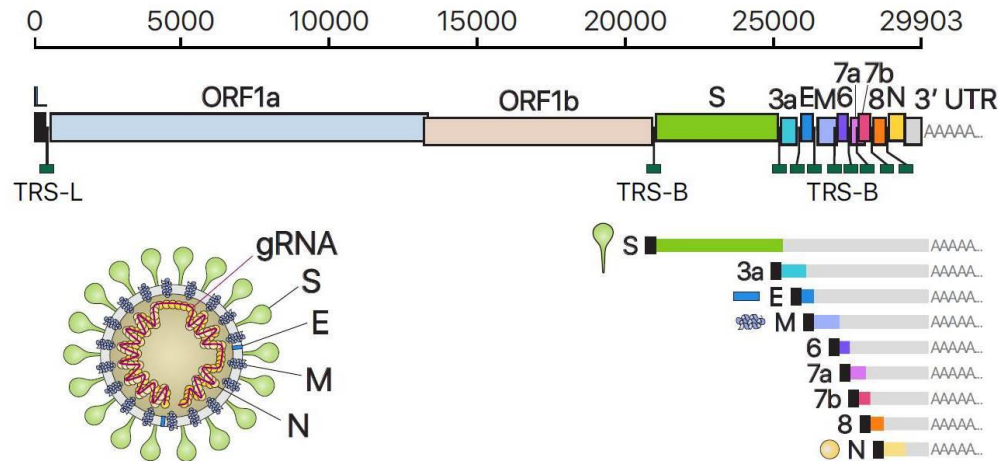
Materials, methods and subjects

- **Aim:** depict the second and third **waves of pandemic** SarS CoV 2 in Greece and **correlation to vaccination process** and attitudes
- **Number** of specimens: 118 152
- **Period:** March 2021 to February 2022
- **Method:** RT PCR (2 kits- 5 genes: S, RdRP, E, N, ORF 1ab)

Method Details

Combined use of two kits

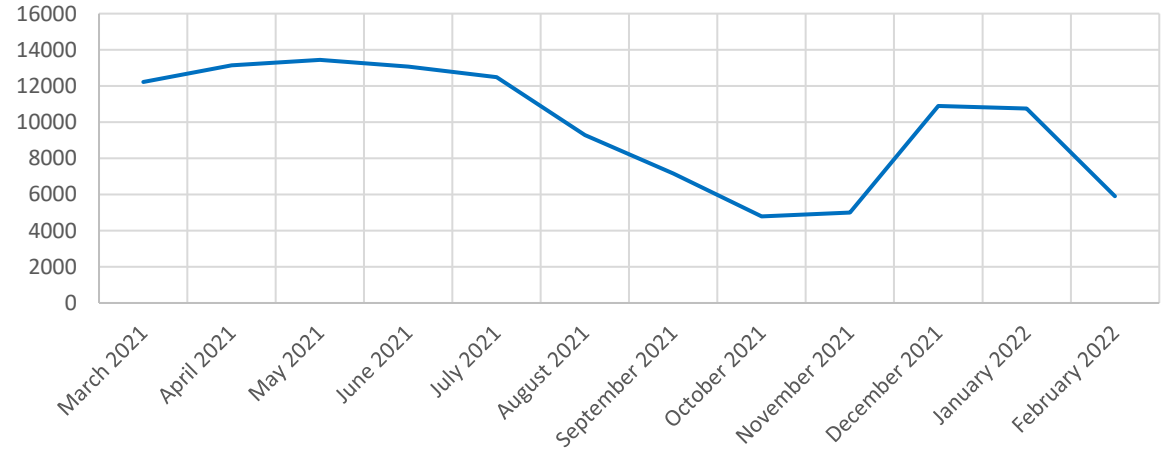
- **Zybio, SARS-CoV-2 Nucleic Acid Detection Kit (PCR-Fluorescent Probe Method)** for the detection of N, ORF 1ab, China
- **Immundiagnostik AG, MutaPLEX® Coronavirus Real-Time-RT-PCR-Kit** for the detection of S/RdRP, E, Germany



Results and conclusions I



total tests 118k



Positivity%



Vaccination-immunity and epidemics feature

Summer months (May-August 2021)	Fall months (Sept - Nov 2021)	Winter months (Dec 2021 – Febr 2022)
vaccination peak	High vaccination immunity	3rd vaccination dose
Low positivity	Delta variant appears while positivity slightly increases	Omicron variant dominates, dramatically increase of positivity
mainly preventive test (traveling)	mainly preventive test (work return)	Preventive and confirmation tests (due to positive rapid test)
High numbers of diagnostic tests	Low numbers of diagnostic tests (rapid as additional diagnostic tool)	High numbers of diagnostic tests (End Year's family holidays)
Screening Method	Screening Method	Confirmation method

Results and conclusions II

- The arrival of authorized vaccines in December 2020 and public health measures (lockdown etc) helped bring new infection levels back down through the summer period where specimens reflected simple preventive testing (April 2021 to September 2021)
- From September 2021 low specimen numbers and low positivity due to vaccination and rapid tests in routine (September – October 2021)
- The third wave took place late in December 2021 as the contagious **omicron** variant began to circulate and become dominant, during End Year's family holidays in Greece (December 2021 – January 2022).

Thank you for your attention