Based on the provided document pubmed-covidrepro-set - Copy.nbib.txt, the following herbs, natural substances, and bioactive compounds are mentioned:

Herbs & Plant-Derived Compounds

- **Garlic (*Allium sativum*) & Allicin:** The document highlights **Allicin**, the major organosulfur compound produced by garlic plants upon tissue damage. It is noted for its strong antimicrobial activity and was investigated for its effects on SARS-CoV-2 infected cells (specifically Calu-3 cells), where it showed a protective effect. [1]

- **Olive (*Olea europaea*) & Olive Nutraceuticals:** "Olive nutraceuticals" and natural compounds derived from olive are mentioned for their potential to inhibit protein tyrosine kinase (PTK). This inhibition is discussed as a strategy to target both cancer progression and SARS-CoV-2 viral replication. [2]

- **Chitosan:** A natural polysaccharide derived from chitin, mentioned in the context of drug delivery systems and nanomedicine. [3]

Natural Metabolites & Immunomodulators

- **Melatonin:** Described as an endogenous, dietary, and therapeutic molecule. The text emphasizes its role in "antioxidative and anti-inflammatory reprogramming" to preserve homeostasis and potentially treat COVID-19. [4]

- **Beta-Glucan:** Identified as an "immune training agent." It is used to "train" innate immune cells (like monocytes and NK cells) to produce an enhanced response to pathogens, a concept known as "trained immunity." [5]

- **Ketone Bodies (β-hydroxybutyrate):** Produced during fasting or a **ketogenic diet**, these are highlighted as an alternative carbon source that can "metabolically reprogram" exhausted T cells, restoring their function and improving survival in severe respiratory infections. [6]

- **Itaconate:** A metabolite produced by immune cells that has both antiviral and immunomodulatory properties. Low levels of itaconate are correlated with COVID-19 severity, and it is being investigated as a therapy to combat hyper-inflammatory responses. [7]