

## **Antimicrobial activity of Selenium nanoparticles (SeNPs) against potentially pathogenic oral microorganisms: A Scoping Review**

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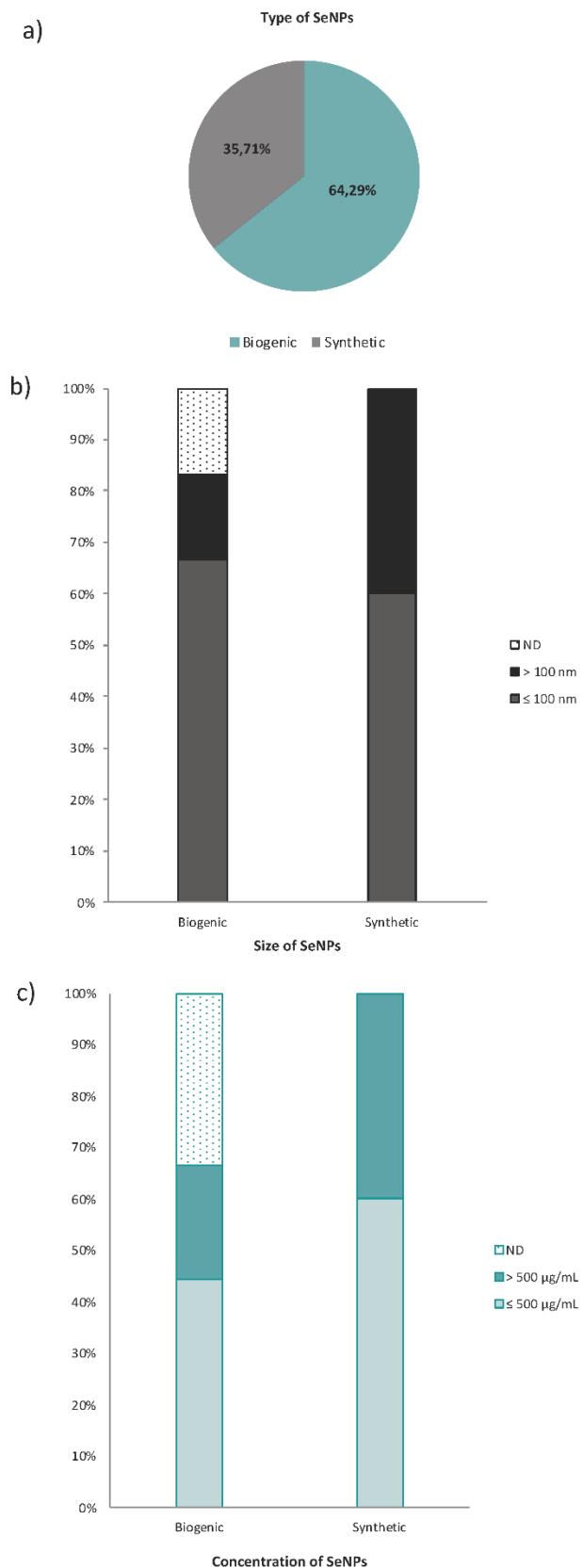
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**Table S1. Search Strategies performed in electronic databases.**

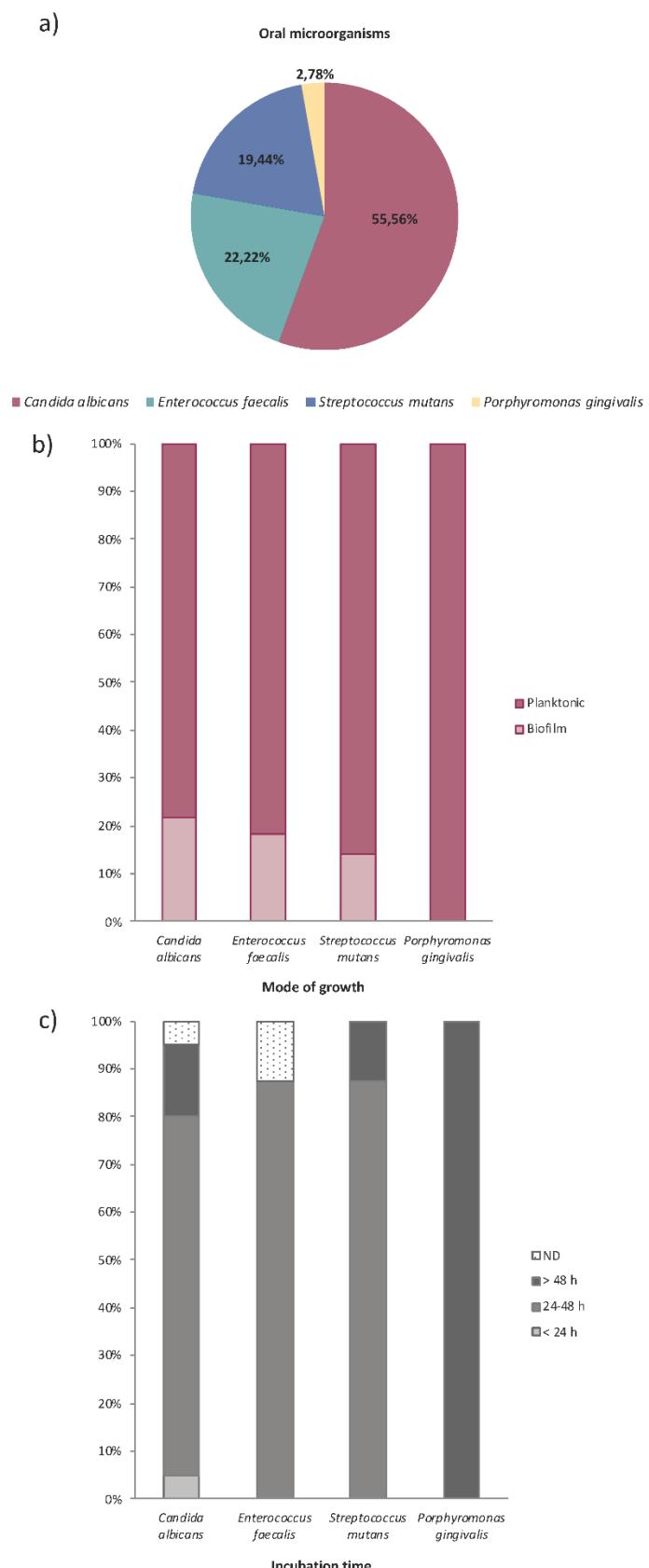
| Database | Search Strategies  |
|----------|--|
| Medline  | ((Selenium AND nanoparticles) OR SeNPs OR NanoSe) AND (oral pathogens OR "Streptococcus mutans" OR Actinomyces OR "Candida albicans" OR "Porphyromonas gingivalis" OR Prevotella OR "Streptococcus oralis" OR Aggregatibacter OR "Enterococcus faecalis" OR "Fusobacterium nucleatum" OR bacteria OR oral biofilm OR oral infection)   |
| Embase   | ((('selenium'/exp OR selenium) AND ('nanoparticles'/exp OR nanoparticles)) OR senps OR nanose) AND ((oral AND pathogens) OR 'streptococcus mutans' OR actinomyces OR 'candida albicans' OR 'porphyromonas gingivalis' OR prevotella OR 'streptococcus oralis' OR aggregatibacter OR 'enterococcus faecalis' OR 'fusobacterium nucleatum' OR bacteria OR (oral AND biofilm) OR (oral AND infection)) AND [embase]/lim |
| Scopus   | (TITLE-ABS-KEY ("Selenium nanoparticles" OR senps OR nanose)) AND (TITLE-ABS-KEY ("oral pathogens" OR "Streptococcus mutans" OR actinomyces OR "Candida albicans" OR "Porphyromonas gingivalis" OR prevotella OR "Streptococcus oralis" OR aggregatibacter OR "Enterococcus faecalis" OR "Fusobacterium nucleatum" OR bacteria OR "oral biofilm" OR "oral infection"))   |
| LILACS   | (("Selenium nanoparticles" OR senps OR nanose) AND ("oral pathogens" OR "Streptococcus mutans" OR actinomyces OR "Candida albicans" OR "Porphyromonas gingivalis" OR prevotella OR "Streptococcus oralis" OR aggregatibacter OR "Enterococcus faecalis" OR "Fusobacterium nucleatum" OR bacteria OR "oral biofilm" OR "oral infection"))   |

**Table S2. Critical appraisal details.**

| Reference | Type of Study | I: Test substance identification | II: Test system characterization | III: Study design description | IV: Study results documentation | V: Plausibility of study design and data | Total points | It is considered reliable (yes/no) | Reliability category |
|-----------|---------------|----------------------------------|----------------------------------|-------------------------------|---------------------------------|--|--------------|------------------------------------|----------------------|
| [38]      | In vitro      | 4                                | 3                                | 5                             | 3                               | 2  | 17           | yes                                | 1                    |
| [45]      | In vitro      | 4                                | 3                                | 5                             | 3                               | 2  | 17           | yes                                | 1                    |
| [46]      | In vitro      | 4                                | 3                                | 2                             | 2                               | 2  | 13           | no                                 | 3                    |
| [47]      | In vitro      | 4                                | 3                                | 6                             | 2                               | 2  | 17           | yes                                | 1                    |
| [48]      | In vitro      | 4                                | 3                                | 6                             | 3                               | 2  | 18           | yes                                | 1                    |
| [55]      | In vitro      | 4                                | 3                                | 6                             | 3                               | 2  | 18           | yes                                | 1                    |
| [49]      | In vitro      | 4                                | 3                                | 4                             | 1                               | 2  | 14           | no                                 | 3                    |
| [56]      | In vitro      | 4                                | 3                                | 6                             | 3                               | 2  | 18           | yes                                | 1                    |
| [67]      | In vitro      | 4                                | 3                                | 5                             | 2                               | 1  | 15           | no                                 | 3                    |
| [43]      | In vitro      | 2                                | 2                                | 3                             | 2                               | 0  | 9            | no                                 | 3                    |
| [50]      | In vitro      | 4                                | 3                                | 6                             | 3                               | 2  | 18           | yes                                | 1                    |
| [44]      | In vitro      | 1                                | 3                                | 3                             | 1                               | 0  | 8            | no                                 | 3                    |
| [68]      | In vitro      | 4                                | 3                                | 6                             | 3                               | 2  | 18           | yes                                | 1                    |
| [57]      | In vitro      | 4                                | 3                                | 6                             | 3                               | 2  | 18           | yes                                | 1                    |
| [51]      | In vitro      | 4                                | 2                                | 5                             | 2                               | 2  | 15           | yes                                | 1                    |
| [58]      | In vitro      | 3                                | 2                                | 5                             | 3                               | 2  | 15           | yes                                | 1                    |
| [59]      | In vitro      | 4                                | 2                                | 5                             | 3                               | 2  | 16           | yes                                | 1                    |
| [52]      | In vitro      | 4                                | 2                                | 6                             | 2                               | 2  | 16           | yes                                | 1                    |
| [53]      | In vitro      | 4                                | 2                                | 5                             | 2                               | 2  | 15           | no                                 | 3                    |
| [54]      | In vitro      | 3                                | 2                                | 5                             | 2                               | 2  | 14           | yes                                | 2                    |
| [60]      | In vitro      | 4                                | 3                                | 5                             | 2                               | 2  | 16           | yes                                | 1                    |
| [61]      | In vitro      | 4                                | 3                                | 5                             | 3                               | 2  | 17           | yes                                | 1                    |
| [62]      | In vitro      | 4                                | 3                                | 6                             | 3                               | 2  | 18           | yes                                | 1                    |
| [63]      | In vitro      | 4                                | 3                                | 5                             | 3                               | 2  | 17           | yes                                | 1                    |
| [64]      | In vitro      | 4                                | 3                                | 6                             | 3                               | 2  | 18           | yes                                | 1                    |
| [65]      | In vitro      | 4                                | 3                                | 6                             | 3                               | 2  | 18           | yes                                | 1                    |
| [66]      | In vitro      | 3                                | 2                                | 5                             | 1                               | 1  | 12           | yes                                | 2                    |



**Figure S1. Type of SeNPs reported according to the synthesis methods employed (a), their size (b) and concentration tested (c). (ND, not determined).**



**Figure S2.** Oral microbial species investigated (a) according to their mode of growth (b) and the incubation time employed (c). (ND, not determined).