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2) Summary of 1000 characters including spaces (Text describing the infographic)

Pathogens often face zinc restriction due to the action of nutritional immunity - host processes which restrict microbial access to key micronutrients such as zinc and iron. *Candida albicans* scavenges environmental zinc via two pathways. The plasma membrane transporter Zrt2 is essential for zinc uptake and growth in acidic environments. Neutralisation to pH 7 severely decreases the solubility of ionic Zn^{2+}; this pH increase triggers expression and activity of the zincophore. This fungal-specific system consists of a secreted zinc binding protein Pra1 which captures zinc and returns to the cell via a syntenically expressed receptor, Zrt1. If present in excess, zinc is detoxified via a Zrc1-dependent mechanism. In *C. albicans* Zrc1 plays an important role in the generation of zincosomes. *C. albicans* appears to face both low and high zinc bottlenecks *in vivo* as Zrt2 and Zrc1 are required for kidney and liver colonisation, respectively, in a murine infection model.

3) Bullet point list of Key Facts and Disease Facts that together can be up to 1450 characters including spaces

Key facts:

- Normal member of the human gastrointestinal microbiota (mycobiota).
- Polymorphic fungus - grows as unicellular yeasts, filamentous hyphae or pseudohyphae, forms chlamydospores, Goliath cells; undergoes yeast phase phenotypic switching, e.g. the white-opaque switch.
- Virulence factors: expresses a range of adhesins and invasins, secreted hydrolases and a cytolytic toxin, candidalysin.
- Fitness attributes: requires effective nutrient acquisition, robust metabolic and environmental stress responses for pathogenicity.

Disease facts

- *C. albicans* is the most common cause of candidiasis amongst the *Candida* genus.
- Superficial infections, like oral and vaginal candidiasis (thrush), are extremely common - vaginal candidiasis (thrush) affects 75 million women per annum.
- For invasive candidiasis there are conservative estimates of 250,000 cases and at least 50,000 deaths per year.

4) Taxonomic and Classification information

Kingdom
Fungi

Phylum
Ascomycete

Class
Saccharomycetes

Order
Saccharomycetales

Family
Saccharomycetaceae

Genus
Candida

Species
albicans

5) Up to 10 references

1 Crawford, A. C. *et al.* Biphasic zinc compartmentalisation in a human fungal pathogen. *PLoS pathogens* **14**, e1007013, doi:10.1371/journal.ppat.1007013 (2018).

2 Loboda, D. & Rowinska-Zyrek, M. Zinc binding sites in Pra1, a zincophore from *Candida albicans*. *Dalton transactions*, doi:10.1039/c7dt01675a (2017).

3 Citiulo, F. *et al. Candida albicans* scavenges host zinc via Pra1 during endothelial invasion. *PLoS pathogens* **8**, e1002777, doi:10.1371/journal.ppat.1002777 (2012).

4 Crawford, A. & Wilson, D. Essential metals at the host-pathogen interface: nutritional immunity and micronutrient assimilation by human fungal pathogens. *FEMS yeast research* **15**, doi:10.1093/femsyr/fov071 (2015).

5 Mayer, F. L., Wilson, D. & Hube, B. *Candida albicans* pathogenicity mechanisms. *Virulence* **4** (2013).

6 Brown, G. D. *et al.* Hidden killers: human fungal infections. *Science translational medicine* **4**, 165rv113, doi:10.1126/scitranslmed.3004404 (2012).

7 Kullberg, B. J. & Arendrup, M. C. Invasive Candidiasis. *The New England journal of medicine* **373**, 1445-1456, doi:10.1056/NEJMra1315399 (2015).

Two figures should also be included, but we will send these to our illustrators for polishing and house style. The first figure is often an infographic illustrating key points and can be 5" wide by 3.5" long (12.7 cm wide by 8.89 cm long). The second figure can be up to 2.5" x 2.5" (6.35 cm by 6.35 cm) and can contain a more specific illustration or be a micrograph. If you have any specific changes you would like to see the illustrators make to your figures, you can also send me suggestions as well.