

Supplementary Figures

***Actinotignum schaalii*: relation to concomitants and connection to patients' conditions in polymicrobial biofilms of urinary tract catheters and urines.**

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**Figure S1: NMDS patients' ordination**

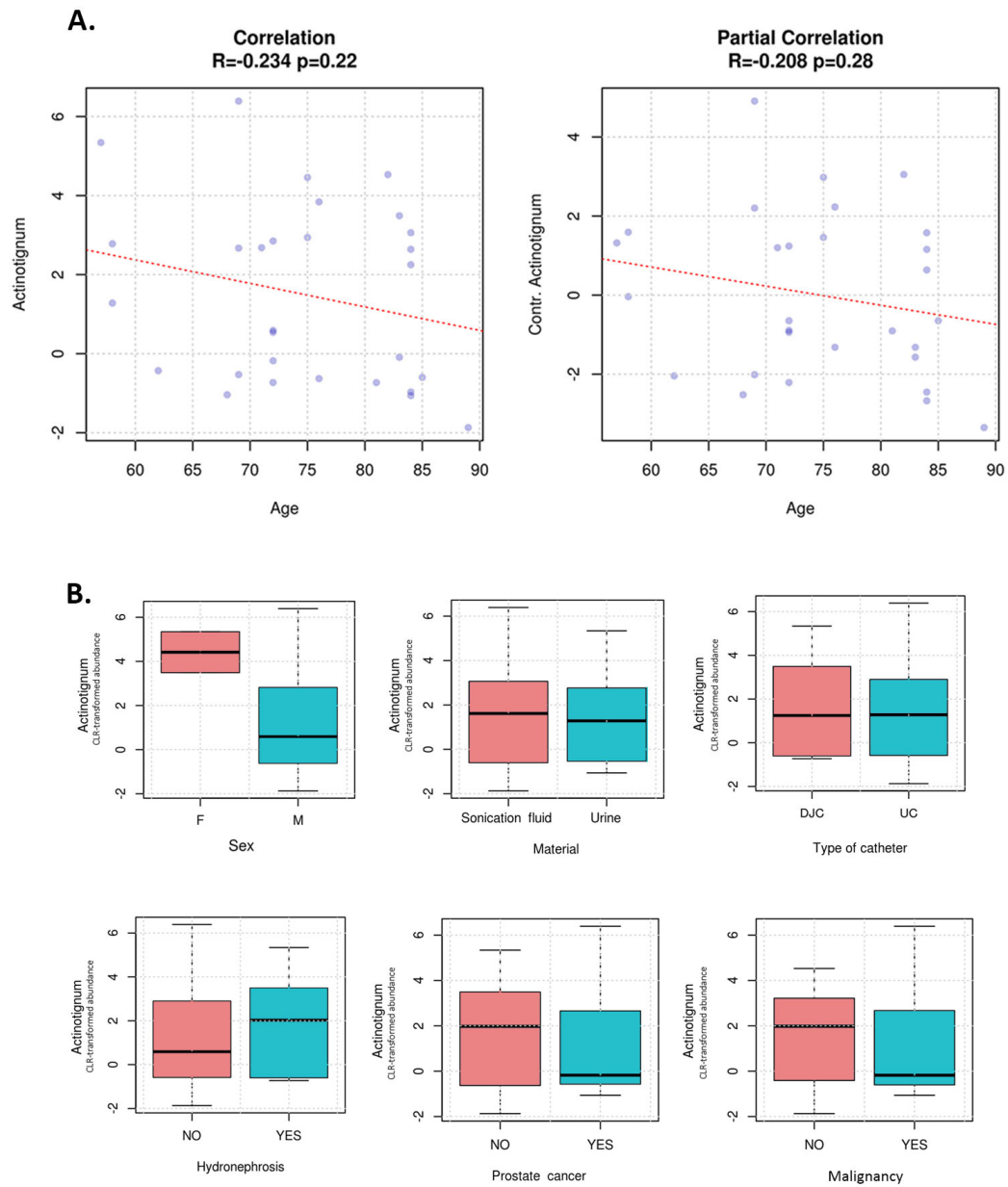


**Figure S1 continues**



Plots show NMDS ordination of samples. Only patients with at least four representatives and those representatives with at least five occurrences were kept to calculate the ordination. This led to the elimination of extreme cases represented by rare species and patients with a low number of species. In each plot, the presence of bacteria in a sample is marked by the blue square. The taxonomy is indicated above each plot.

**Figure S2:** *A. schaalii* abundance and explanatory variables.



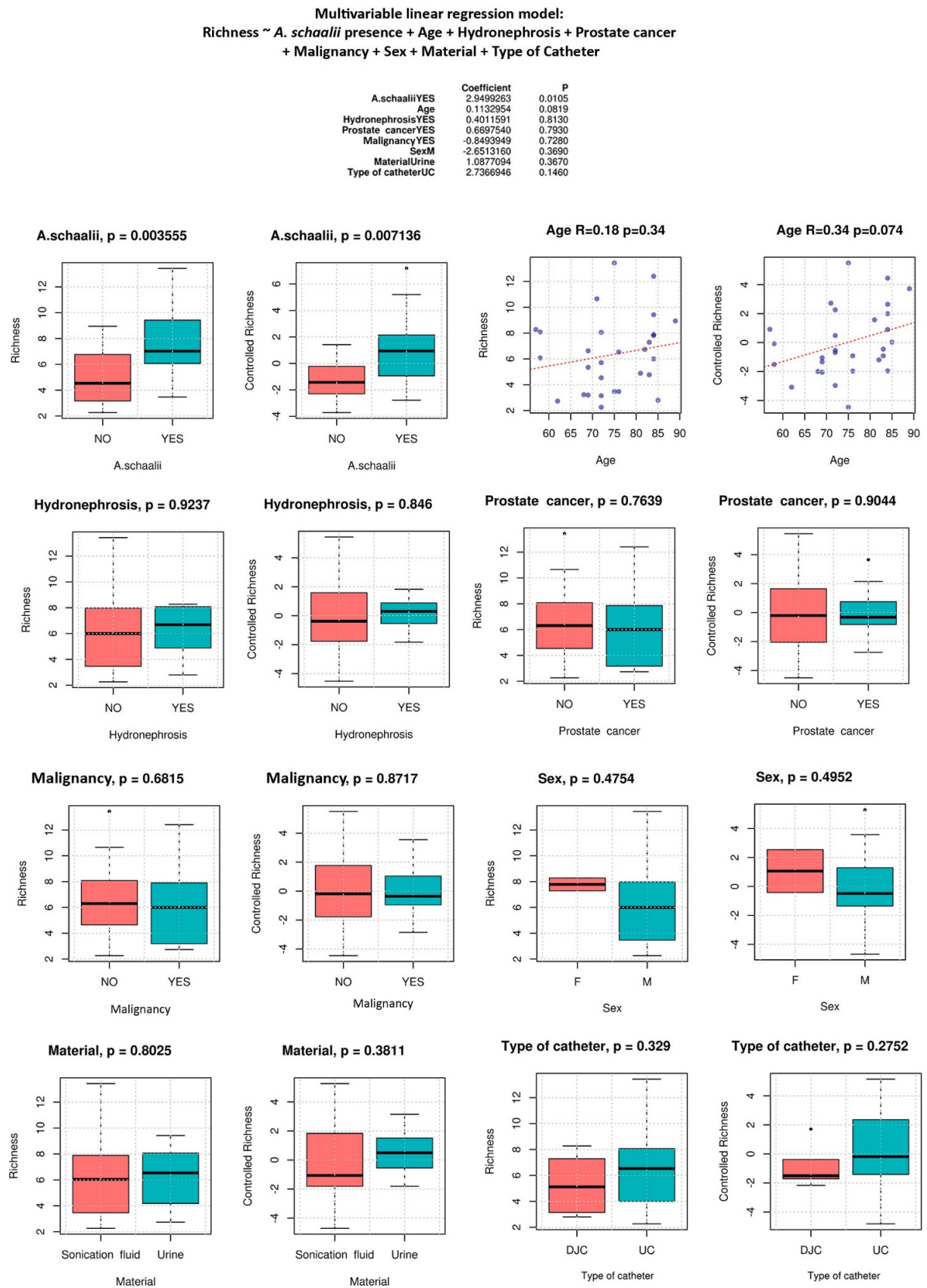
A. Scatterplots show the abundance of *Actinotignum* genus (CLR-transformed) plotted against the Age of patients. The Pearson correlation is given as R, the p-value indicates the significance of the correlation. In the Partial Correlation plot, *Actinotignum* abundance is controlled by the remaining factors entering the multiple regression (all other explanatory variables except *A. schaalii* presence/absence).

B. Boxplots show the association between all explanatory variables and abundance (CLR-transformed) of *Actinotignum* genus. P-values can be found in Supplement S1, Table S7, *Actinotignum* line.

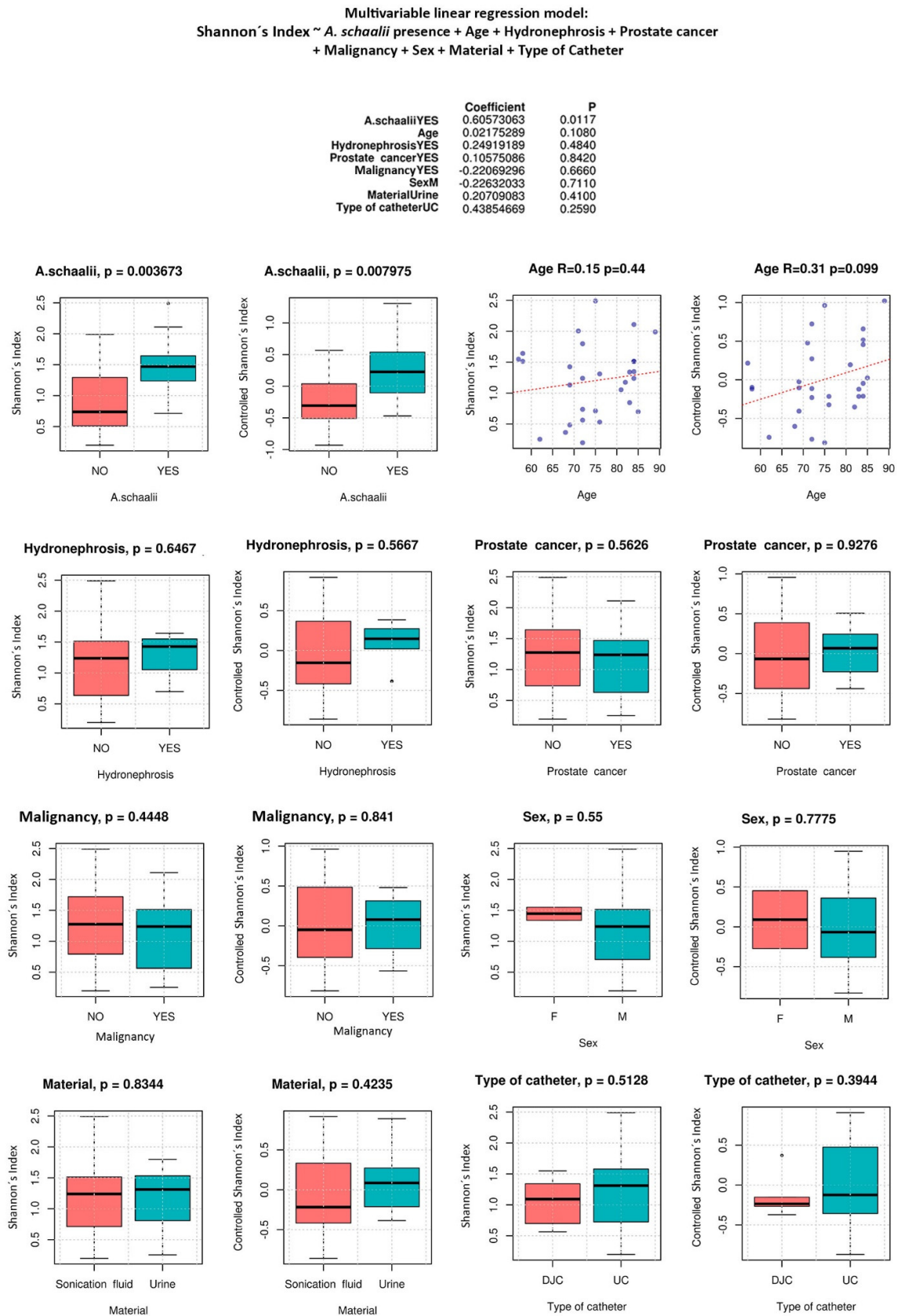
A Richness, Chao1 and ACE estimators are assessed at genus and species levels. Only genus and species Richness

B. Shannon's and Simpson's indices, and Evenness are assessed and compared for 4s+ and 4s- samples. The

**Figure S4:** Multivariable linear regression model fitted to species-based Richness.

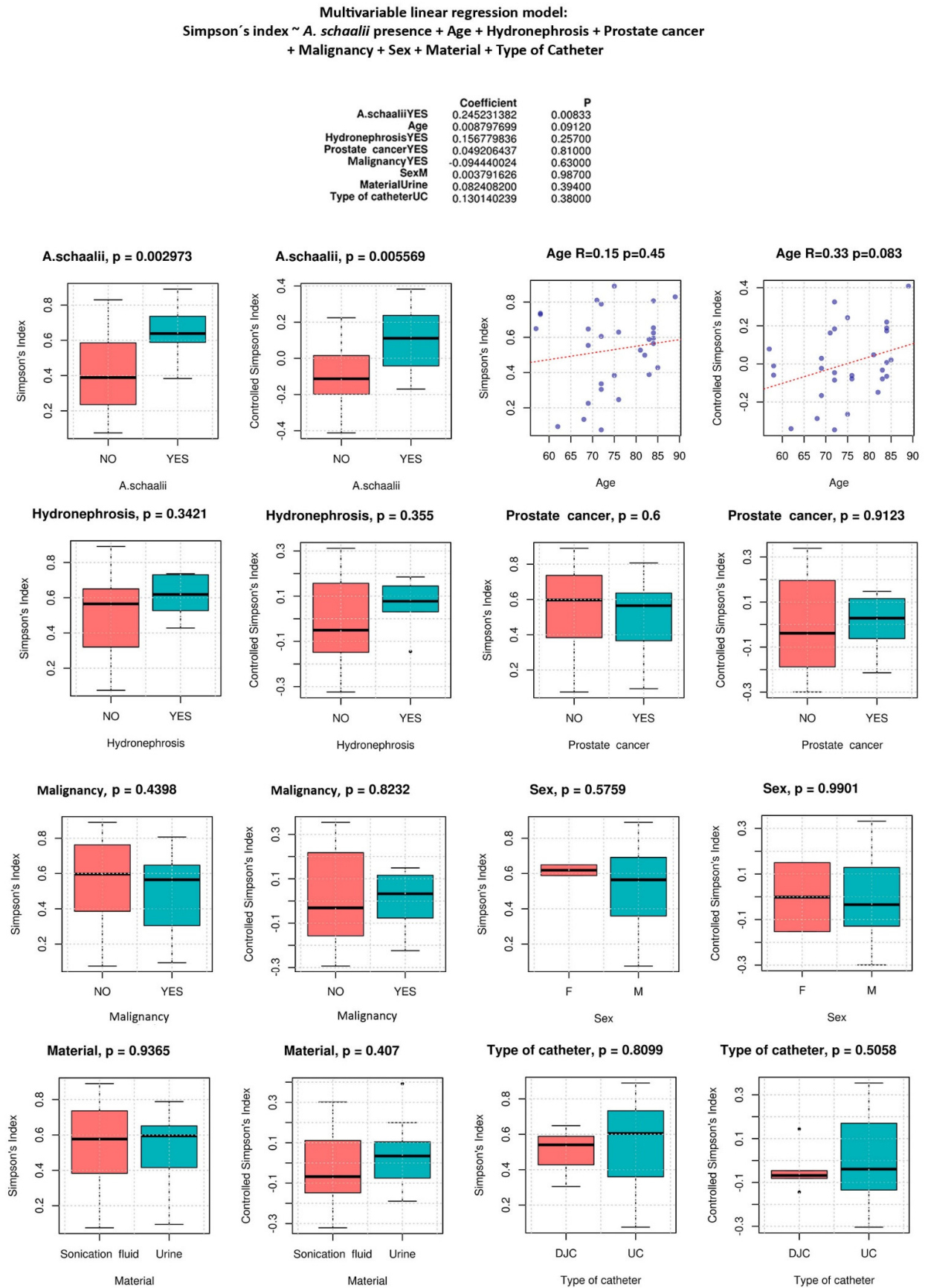


**Figure S5:** Multivariable linear regression model fitted to species-based Shannon's index.



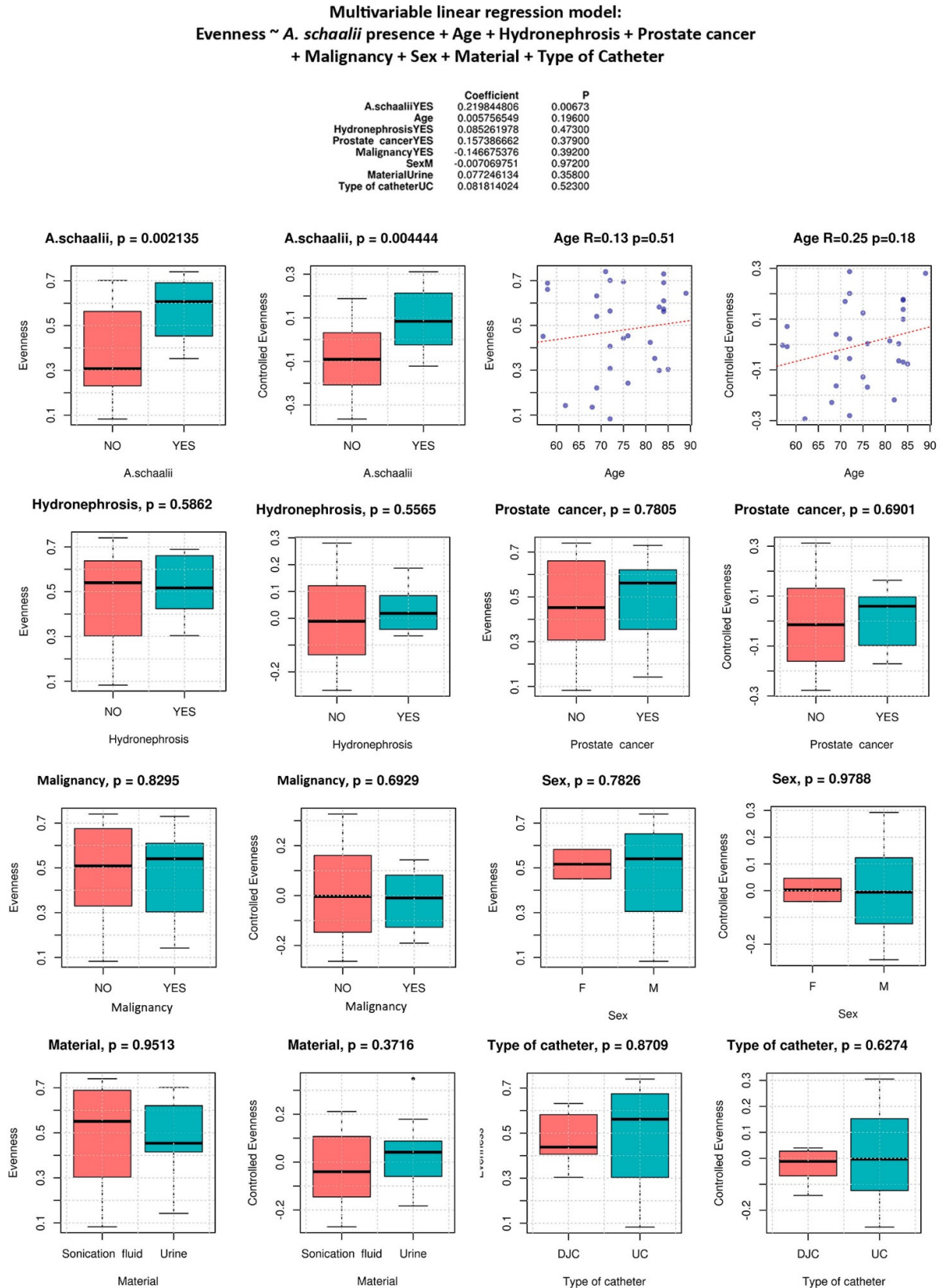


**Figure S6:** Multivariable linear regression model fitted to species-based Simpson's index.

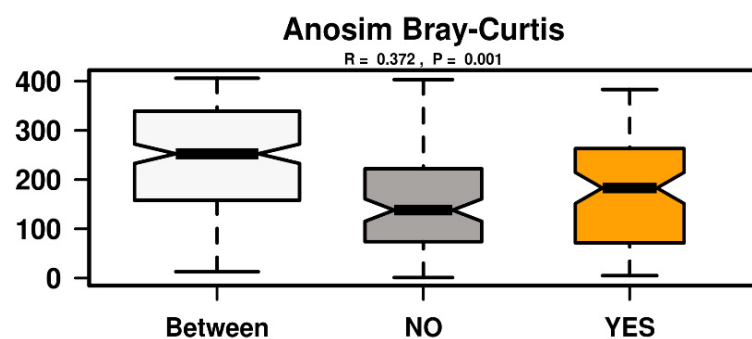




**Figure S7:** Multivariable linear regression model fitted to species-based Evenness.



**Figure S8:** Analysis of similarities – ANOSIM.



Anosim plot shows intra-group and between-group differences in community profiles (rank of values, y-axis) of As- samples (NO, grey) and As+ samples (YES, orange) expressed by the Bray-Curtis metric. The p-value is calculated by comparing intra-group and between-group distances. The plot shows the between-group variation is higher than intra-group variation in each of groups (As+ vs. As- samples).