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To whom it may concern,

Following the request of **TavTech Ltd.**, I have conducted an experimental examination of the impingement of their PRP injection system, at my lab (**MyFET, TAU**), specializing in flow and heat transfer visualization and their quantification.

The experiments were conducted under standard operating conditions of the injection system (shown in Fig. 1): the syringe was held vertically, 8mm above the horizontal solid target. Under intense LED lighting (3,800 Lumens) the flow was visualized by high-resolution video – HD/HD-ready photography by both a Nikon D7000 + 90mm Macro lens and a Photron AX200 + Navitar x12 zoom microscope lens, both at a working distance of 10cm.

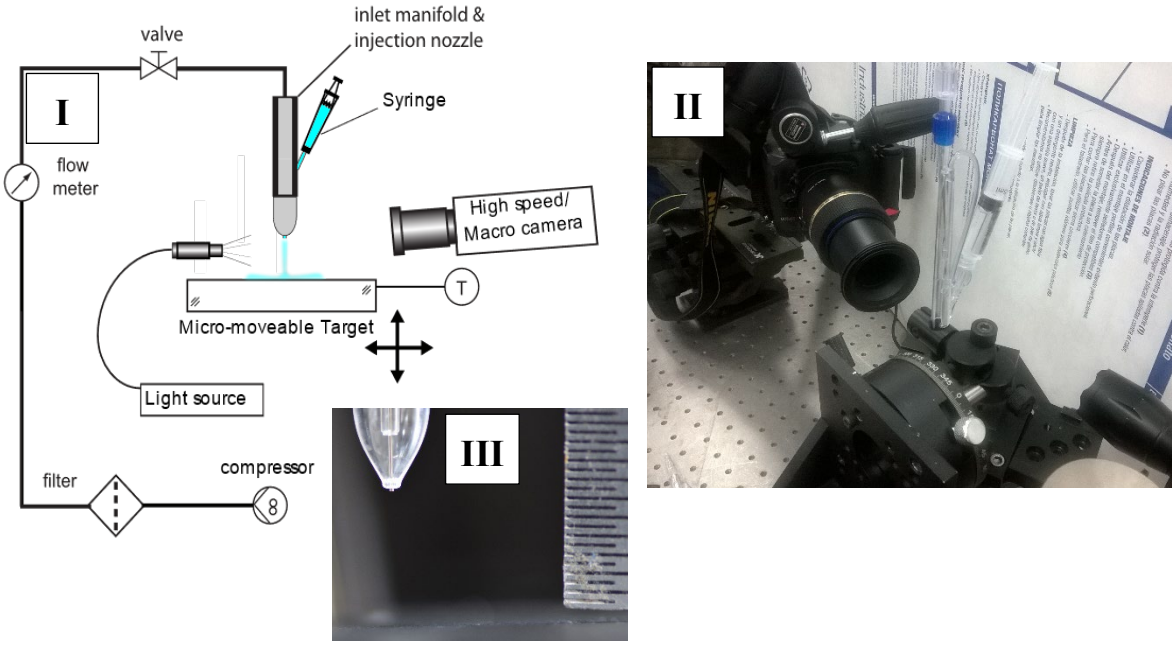

Fig. 1: Experimental system setup: I) schematic of layout; II) photo of system; III) close-up of nozzle, with scale bar

From the experiments high-speed micro/macro videos were recorded (30-3000fps, as in Fig. 1 III). In the videos back-lighting produced darker areas where a high concentration of droplet existed. The resulting videos were analyzed by image analysis software (ImageJ) for extracting both qualitative and quantitative data shown in Fig. 2.

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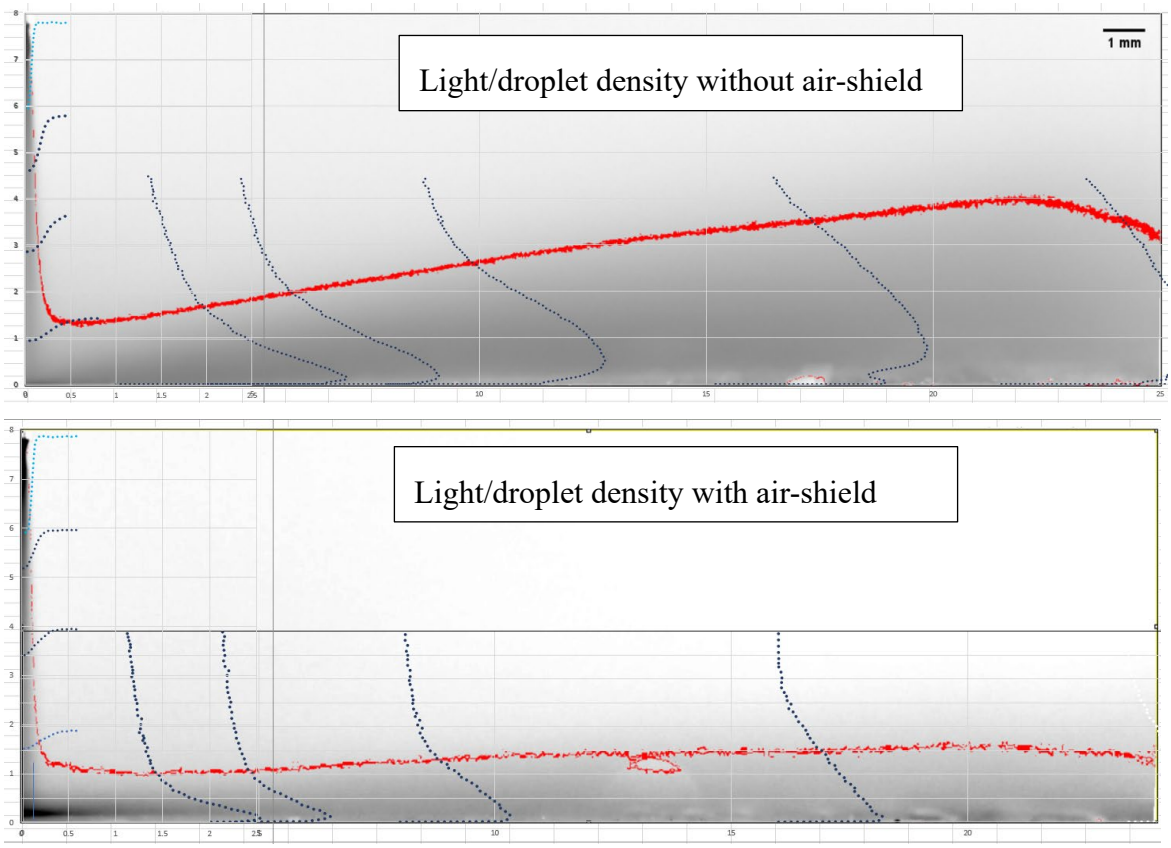

Fig. 2: Spray analysis – dark areas indicate dense liquid, red line – less than 9% droplets.

As the figure shows, the addition of the air-shield system (Bottom image) clearly suppresses the reflection of microdroplets – as shown by the cut-off level (9% droplets - red line). Moreover, the detailed density curves (blue lines) show unprecieveable levels above 2mm height with the air-shield, while without it the droplets can rise to much higher heights. It is also important to note that as the target was an impenetrable solid, this study represents the worst case scenario, with skin and flesh targeting expected to result in even lower levels of microdroplets.

It is therefore safe to conclude that the air-shield provides **a significant improvement** in suppression of reflected microdroplets,seen here as reflected light from „fog".

Further details of these measurements and findings can be provided, upon request.

Sincerely,

Herman Haustein, PhD, Tel Aviv University