1023-32-1078 **Faruk F Abi Khuzam*** (farukakh@aub.edu.lb), American University of Beirut, P.O.Box 11-0236 / Mathematics, Riad El-Solh, Beirut, 1107 2020, Lebanon. *On the growth of vector functions of several complex variables.* Preliminary report.

For meromorphic $f = (f^1, f^2, ..., f^m) : C^n \to C^m$, we introduce a "sharp-function" $u^{\#}_{\max}$ as follows: for $z = re^{i\theta}, r > 0, 0 \le \theta \le \pi$, put

$$u^{\#}_{\max}(re^{i\theta}, \mathbf{f}) = \max_{1 \le j \le m} \sup_{\zeta \in S} u^{\#}(re^{i\theta}, f^j_\zeta)$$

where, $u^{\#}(re^{i\theta}, f^j_\zeta)$ is the function of Baernstein.

Our simplest results are:

Theorem 1. $u^{\#}_{\max}$ is subharmonic in $\pi^+ = \{z : \mathrm{Im} z > 0\}$, continuous on the closure of π^+, and:

(a) $u^{\#}_{\max}(r, \mathbf{f}) = N_{\max}(r, \infty, \mathbf{f}); u^{\#}_{\max}(re^{i\pi}) = N_{\max}(r, 0, \mathbf{f})$.

(b) $\sup_{0 \le \theta \le \pi} u^{\#}_{\max}(re^{i\theta}, \mathbf{f}) = T_{\max}(r, \mathbf{f})$.

Theorem 1. If f is entire of order $\rho \le 1$, then

$$\limsup_{r \to \infty} \frac{N_{\max}(r, 0, \mathbf{f})}{\log M(r, \mathbf{f})} \ge \frac{\sin \pi\rho}{\pi\rho}.$$

Furthermore, this inequality is sharp. (Received September 25, 2006)