Title of Research Project		Innate immune responses of selected local Nigerian herbs that			
		have anticancer activity on macrophages and their effects on			
		prostate and breast cancer cells in vitre and in vivo.			
Status		New / Continued			
Applicant	Institutio	University of Abuja	Circle if	Circle if	
	n		under 40	under 35	
	Job title	Professor of Medical Microbiology			
	and Name	Salamatu S. Machunga-Mambula			
	Institutio				
	n				
Research	Job title				
collaborators	and Name				
(Please add lines	Institutio				
as appropriate)	n				
	Job title				
	and Name				
Host researcher at IGM					
Purpose of the Research		1. To determine the effects of local herbs on the TNF			
Project		signaling pathway in vitro.			
(within 200 words)		2. To determine the effects of local herbs in vitro on prostate			
		cancer and breast cancer cell			
		lines.			
		3 To determine in vivo effects of local herbs on innate			
		immune response and cancer reduction			
			1011		
		in tumorigenic mouse models.			
Results (including the		The Objectives 1 and 2 were successfully tested with promising			
number of web meetings;		preliminary results as shown below.			
within 1,000 words)					
		Analysis of IFN inducing activity of herbs			



Key: TO = Telfairia occidentalis, AM = Annona muricate, SB = Soghum bicolor

Analysis of cell death mechanism of herbs





	Conclusions and future research:			
	1. TO, AM, and SB showed induction of Interferon beta upon			
	stimulation on mouse macrophage cell lines RAW 264.7 cell			
	lines. Future research: To test Human cell lines, namely THP1			
	cells and PBMC.			
	2. Human lung cancer cells A549 and Human lung cancer cells			
	p53 knock out (KO) H1299 showed significant evidence of cell			
	death at the concentration of 250ug/ml of TO, AM and SB.			
	Future studies: Define the cell death mechanism and carry			
	out <i>in vivo</i> studies			
Publication	[Conference, symposium, workshop etc.]			
*Provide the details of the	Presenter(s), presentation title, meeting name, venue, date			
conferences or journals				
where the above work was	NONE			
presented or published.				
	[Journals]			
	Author(s), paper title, journal name, volume, pages, year, impact			
	factor			
	NONE, we currently have insufficient data for publication, this is due			
	to the short period of time allowed on the grant funding to be present			
	in Prof. Akinori to carry out the needed amount of experiments.			
	[Press release]			
	NONE.			