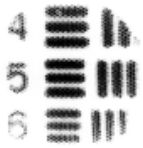
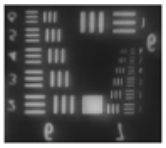
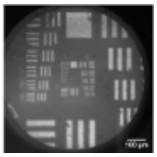
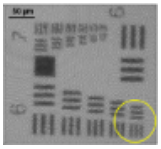
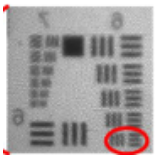
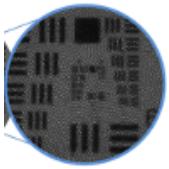
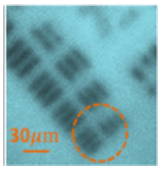
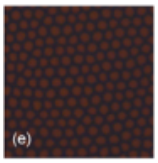
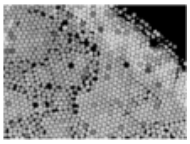
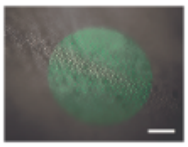
Comparing Fiber Image Guide Experiment Results

Title	Details	Journal	Author	Date	Result
Beam-splitting ball lens: a new integrated optical component	Procedure outlined uses a 3500-core fiber and a beam-splitter/ball lens to image test pattern. The noticible pixelation is typical of image fibers. Note: high degree of focus demonstrated with a ball lens.	Optical Letters 24 (21)	Ai, J., Popelek, J., Li, Yao.	Nov, 1999	
High numerical aperture microendoscope objective for a fiber confocal reflectance microscope	Sumitomo IGN-15/30 LIGA is combined with an oil-filled objective lens. A 2mm plano convex lens is followed by two custom aspherics made of ZEONEX.	Optics Express 15 (5)	Kester, R., Tkaczyk, T., Descour, M., Christenson, T., Kortum, R.	Feb, 2007	
Intravital, fiber-optic fluorescence imaging for monitoring ovarian carcinoma progression & treatment response	Coherent bundles of 30 000 cores (Sumitomo IGN-08/30 and Fujikura FIGH-30-850N) were used with a 10x objective (NT46-144, Edmund) on the proximal side of the probe. The distal face is in direct contact with the sample.	Society of Photo-Optical Instrumentation Engineers (SPIE) vol7380 - Photodynamic Therapy: Back to the Future	Spring, B., Celli, J., Evans, C., et al	Aug, 2004	
A Fiber-Optic Fluorescence Microscope Using a Consumer-Grade Digital Camera for In Vivo Cellular Imaging	Sumitomo IGN-08/30 was used to develop a low cost method for microendoscopy using a consumer-market DSLR capturing device.	PLoS ONE 5(6)	Shin, D., Pierce, M., Gillenwater, A., Williams, M., Richards-Kortum, R.	June, 2010	
Imaging Fourier transform endospectroscopy for in vivo and in situ multispectral imaging	Experiment combines using a FIGH-30-850N and a 10X Olympus objective lens to create a high-resolution picture of in situ samples.	Optical Society of America 20 (21)	Zhang, H.Yuan, J. Ling, F.	Oct, 2012	
Snapshot spectrally encoded fluorescence imaging through a fiber bundle	A Fujikura 6k bundle distal probe features a prism/lens objective that creates standard offset. The offset and images captured are algorothmically combined in HD imagry.	Journal of Biomedical Optics 17 (8)	Bedard, N. Tkacyzk, T.	Aug, 2012	
Integrated micro-endoscopy system for simultaneous fluorescence and opticalresolution photoacoustic imaging	FIGH-30-850 is used with Olympus microscope 6x objective and CCD bench equipment. The paper mentions the Nyquist limit - avoiding resolutions which restrain wavelength.	Journal of Biomedical Optics	Shao, P., Shi, W., Hajireza, P., Zemp, R.	July, 2012	
Spectral background and transmission characteristics of fiber optic imaging bundles	Schott leached fiber bundle with 20,000 fibers were compared with FIGH-30-850N. The result is a clear indicator that all manufactures of FIGs are relatively the same.	Applied Optics 47 (25)	Udovich, J., Kirkpatrick, N., et al	July, 2008	
Location of Optical Fibers for the Calibration of Incoherent Optical Fiber Bundle for Image Transmission	An imaging method is outlined, which relies on incoherent bundles. The image quality is degraded, but the cost-benefit is appreciable.	IEEE Transactions on Insturmentation and Measurment 58 (9)	Fernandez, P., Lazaro, J,. Gardel, A., et al	Sept, 2009	
Use of a coherent fiber bundle for multi-diameter single fiber reflectance spectroscopy	18,000 step-index fibers in a Schott Glass product are used to demonstrate an endoscoptic system	SPIE vol8578	Amalink, A. Hoy, C., et al	Feb, 2013	

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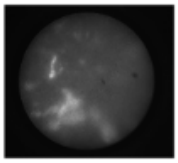
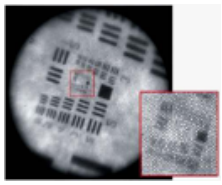
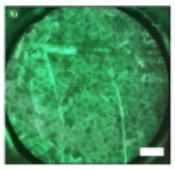
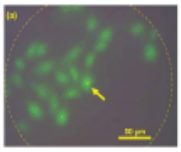
Dark-field illuminated reflectance fiber bundle endoscopic microscope	A novel solution is introduced to mitigate the specular problems caused in scanning endoscopic systems.	Journal of Biomedical Optics 16(4)	Liu, Xuan., Huang, Y., Kang, J.	April, 2011	
Neural imaging in songbirds using fiber optic fluorescence microscopy	Sumitomo IGN08/30 is fitted with a GRINTECH GT-IRLS-MO-080-0415-810	SPIE vol8207 - Photonic Therapeutics and Diagnostics VIII	Nooshabadi, F., Hearn, G., Lints, T., Maitland, K.	Feb, 2012	
Real-time snapshot hyperspectral imaging endoscope	A relay (Olympus UPLSAPO 20X combined with AC508–300-A1) reimages the proximal face of the Sumitomo fiber bundle. The distal face images via an undisclosed wide angle miniature objective (GT-IFRL-100-010-50-NC). The evaluation methods are clearly defined with attention paid detailing the optics used.	Journal of Biomedical Optics 16(5)	Kester, R., Bedard, N., Liang, G., Tkaczyk, T.	May, 2011	
Remote in vivo imaging of human skin corneocytes by means of an optical fiber bundle	Sumitomo IGN-08/30 is used to demonstrate a method of in vivo imaging which takes advantage of FIGs extremly short focal length to image only top-layer cells.	AIP Review of Scientific Instruments (78)	Dromard, T., Ravaine, V., Ravaine, S., Leveque, J., Sojic, N.	May, 2007	
Optical transfection using an endoscope-like system	FIGH-06-300S is used in conjunction with an objective microscope lens to create a in vito imaging system.	Journal of Biomedical Optics 16(2)	Ma, N., Gunn-Moore, F., Dholakia, K.	Feb, 2011	
Fiber Image Bundle Covert Eyetap Display	50 000 core FIGH from Fujikura is used with a scanning laser projector to create a miniturized wearable display.		Morgan, R. J.	April, 2013