

# Urology

## 1. Staffs and Students (December, 2010)

Professor and Chairman	Kazunori Kihara	
Associate Professor	Satoru Kawakami (~June),	Yasuhisa Fujii (July~)
Lecturer	Yasuhisa Fujii,	Hitoshi Masuda
Assistant Professor	Fumitaka Koga,	Kazutaka Saito,
	Yohei Okada,	Akihiro Yano (~June),
	Noboru Numao(July~),	Yasumasa Iimura (July~)
Hospital Staff	Junichirou Ishioka,	Minato Yokoyama,
	Mizuaki Sakura,	Manabu Tatokoro,
	Yoshinobu Komai,	Shuichiro Kobayashi,
	Toshiki Kijima	
Graduate Student	Masaki Tanaka,	Mizuaki Sakura,
	Yoshinobu Komai,	Toshiki Kijima,
	Naoko Kawamura,	Naotaka Fukui,
	Sachi Kitayama,	Yasukazu Nakanishi,
	Yuichi Kubo,	Hideki Takeshita,
	Shuichiro Kobayashi,	Toshihiro Kanda,
	Masaya Ito,	Takayuki Nakayama,
	Masaharu Inoue,	Hajime Tanaka

## 2. Purpose of Education

We are committed to offering educational programs to facilitate the development of outstanding academic urologists of the next generation. We believe that one of our missions is to educate students, residents and fellows in the art and science of urology and thereby to train the future leaders in the field. The continuous commitment to clinical and translational research is reflected to publications in international journals, presentations at international meetings and awards, which are listed below.

## 3. Research Subjects

### Clinical Research

- 1) Innovation and establishment of minimally invasive, gasless single port access urological surgery
- 2) Development of optimal 3-dimensional prostate needle biopsy
- 3) Development of nomograms for optimal detection of prostate cancer
- 4) Sequential combination therapy to prolong survival of advanced prostate cancer patients
- 5) Development and establishment of curative and minimally invasive bladder preservation using low-dose chemoradiotherapy plus partial cystectomy
- 6) Development and establishment of minimally invasive, nonischemic nephron-sparing surgery against kidney cancer
- 7) Development and establishment of focal therapy using hemiablativ brachytherapy against prostate cancer
- 8) Sequential combination therapy to prolong survival of advanced kidney cancer patients, starting with immunotherapy combined with multiple molecular targeted agents
- 9) Application of diffusion-weighted MRI to diagnosis, assessment of therapeutic effects and monitoring of relapse in urological cancer
- 10) Application of serum C-reactive protein as a prognostic biomarker of urological malignancies and as a marker for surgical invasiveness

### Translational Research

- 1) Development of differentiation-inducing therapy against hormone-resistant prostate carcinomas
- 2) Investigation on molecular mechanisms, in particular deregulation of the NO system, underlying voiding and erectile dysfunction to develop rational therapy
- 3) Overcoming therapeutic resistance to chemo- and/or radiotherapy against urological malignancies using novel molecular targeted agents
- 4) Investigation on functional roles of p63 protein in urothelial carcinomas

#### 4. Clinical Services

Our mission is to provide the best urological care to all patients. Besides offering urological practices of the international standard, we are making a continuous effort to improve daily practices. The gasless single port access urological surgery, which we have innovated its concept and developed surgical techniques specific to all urological organs, has been officially approved as medical services provided by the Japanese Governmental Health Insurance System in April 2008. These minimally invasive surgical techniques can be fundamentally applied to all patients having urological malignancies, even those having locally advanced disease and previous histories of abdominal surgery.

#### 5. Publications (International)

##### Original Article

1. Fujii Y, Yamamoto S, Yonese J, Kawakami S, Okubo Y, Suyama T, Komai Y, Kijima T, Fukui I. A novel technique to prevent postradical retropubic prostatectomy inguinal hernia: the processus vaginalis transection method. *Urology*, 75: 713-17, 2010.
2. Kihara K, Kobayashi S, Kawakami Y, Fujii Y, Kageyama Y, Masuda H. Minimum incision endoscopic surgery (MIES) in Japanese Urology: results of adrenalectomy, radical nephrectomy and radical prostatectomy. *Aktuelle Urologie*, 41: S15-S19, 2010.
3. Kodaira M, Takahashi S, Takeuchi K, Yuasa T, Saotome T, Yonese J, Fukui I, Hatake K. Sorafenib-induced erythema multiforme for metastatic renal cell carcinoma. *Ann Oncol*. 21(7):1563-1565, 2010.
4. Masuda H, Kawano K, Matsuoka Y, Yokoyama M, Koga F, Saito K, Kihara K, Azuma H. Interactions between inducible nitric oxide synthase and cyclooxygenase-2 in response to ischaemia-reperfusion of rabbit bladder. *BJU Int*, 106: 716-22, 2010.
5. Takeshita H, Yonese J, Iwao Fukui. Successful long-term remission following repeated salvage surgery in a patient with chemotherapy-resistant metastatic non-seminomatous germ cell tumor: An additional report of *Int J Clin Oncol* 2007; 12: 485-487. *Int J Clin Oncol*, 15: 528-530, 2010.
6. Yamamoto S, Kawakami S, Yonese J, Fujii Y, Tsukamoto T, Okubo Y, Kijima T, Ishikawa Y, Fukui I. Feasibility of antegrade radical prostatectomy for clinically locally advanced prostate cancer: a comparative study with clinically localized disease. *Int J Urol*, 17: 720-725, 2010.
7. Yoshida S, Koga F, Kawakami S, Ishii C, Tanaka H, Numao N, Sakai Y, Saito K, Masuda H, Fujii Y, Kihara K. Initial Experience of Diffusion-weighted Magnetic Resonance Imaging to Assess Therapeutic Response to Induction Chemoradiotherapy Against Muscle-invasive Bladder Cancer. *Urology*, 75:387-391, 2010.
8. Yuasa T, Maita S, Tsuchiya N, Ma Z, Narita S, Horikawa Y, Yamamoto S, Yonese J, Fukui I, Takahashi S, Hatake K, Habuchi T. Relationship between bone mineral density and androgen-deprivation therapy in Japanese prostate cancer patients. *Urology*. 75(5):1131-1137, 2010.

##### Review Article

1. Fujii Y, Kawakami S, Kihara K. Deferred combined androgen blockade therapy for castration-resistant prostate cancer. In *Hormonal therapy for prostate cancer: Current topics and perspectives*. *Int J Urol*. 17: 302-13, 2010.
2. Saito K, Kihara K. Role of C-reactive protein as a biomarker for renal cell carcinoma. *Expert Rev Anticancer Ther*, 10: 1979-89, 2010.

##### Award

1. Kawakami S, Takeshita H, Tatokoro M, Yamamoto S, Kijima T, Komai Y, Saito K, Numao N, Koga F, Fujii Y, Fukui I, Kihara K. Diagnostic performance of a three-dimensional 14-core systematic biopsy which can detect more than 95% of the prostate cancers detected by the three-dimensional 26-core super-extended biopsy scheme. *Best poster presentation award* in Poster Session 4: How to improve prostate cancer detection on biopsies. Awarded by European Association of Urology, 25th Annual EAU Congress, Barcelona, Spain, Apr, 2010.
2. Masuda H. International Journal of Urology Reviewer of the Year 2009. Awarded by Japanese Urological Association, 2010.
3. Saito K, Kihara K, Kawakami S, Fujii Y, Masuda H, Koga F. Gasless two port access total nephroureterectomy: MIES total nephroureterectomy. *Second Video Prize*. Awarded by European Association of Urology at 25th Anniversary EAU Congress. Barcelona, Spain, Apr, 2010.
4. Saito K. International Journal of Urology Reviewer of the Year 2009. Awarded by Japanese Urological Association,

2010.

5. Yoshida S, Masuda H, Ishii C, Tanaka H, Komai Y, Numao N, Saito K, Koga F, Fujii Y, Kawakami S, Kihara K. Diffusion-weighted magnetic resonance imaging in diagnosis of upper urinary tract cancer. *Third Prize for the Best Abstract (Oncology)*. Awarded by European Association of Urology, 25th Annual EAU Congress, Barcelona, Spain, Apr, 2010.
6. Yoshida S, Masuda H, Ishii C, Tanaka H, Komai Y, Numao N, Saito K, Koga F, Fujii Y, Kawakami S, Kihara K. Diffusion-weighted magnetic resonance imaging in diagnosis of upper urinary tract cancer. Third Prize for the Best Abstract (Oncology). 25th Annual EAU Congress, Barcelona, Spain, Apr, 2010. *Best poster presentation award*. Awarded by European Association of Urology, 25th Annual EAU Congress, Barcelona, Spain, Apr, 2010.

#### Presentations at International Meetings

1. Fujii Y, Komai Y, Saito K, Yasuda Y, Koga F, Masuda H, Yonese J, Kawakami S, Kumagai J, Ishikawa Y, Fukui I, Kihara K. Low incidence of being pathologic lesions at nephrectomy for renal masses presumed to be stage T1N0M0 renal cell carcinoma in Japanese patients: influence of sex, age and tumor size. 2010 Annual Meeting AUA. San Francisco, USA, 2010/3/29.
2. Fukui N, Kageyama Y, Kohno Y, Inoue M, Higashi Y, Kizaka-Kondoh S, Hiraoka M, Development of hypoxia-responsive interferon alpha 2b gene constructs and their suppressive effects on human renal cell carcinoma cell lines in vitro. 2010 Annual meeting of American Urological Association. San Francisco, USA, 2010/5/30.
3. Kawakami S, Takeshita H, Tatokoro M, Yamamoto S, Kijima T, Komai Y, Saito K, Numao N, Koga F, Fujii Y, Fukui I, Kihara K. Diagnostic performance of a three-dimensional 14-core systematic biopsy which can detect more than 95% of the prostate cancers detected by the three-dimensional 26-core super-extended biopsy scheme. 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/17.
4. Kijima T, Kawakami S, Okada Y, Sakai Y, Saito K, Koga F, Masuda H, Fujii Y, Kihara K. Activity of docetaxel against estrogen-refractory prostate cancer and against estrogen- and glucocorticoid-refractory prostate cancer. 2010 Genitourinary Cancer Symposium. San Francisco, USA, 2010/3/5.
5. Kijima T, Kawakami S, Yano A, Okada Y, Sakai Y, Saito K, Koga F, Masuda H, Fujii Y, Kihara K. Docetaxel is effective to estrogen refractory prostate cancer but not to estrogen-and glucocorticoid-refractory prostate cancer. 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/19.
6. Kobayashi S, Yoshida S, Koga F, Ishii C, Tanaka H, Komai Y, Saito K, Masuda H, Fujii Y, Kawakami S, Kihara K. Feasibility of diffusion-weighted magnetic resonance imaging in diagnosis of bladder cancer. 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/17.
7. Kihara K, Tsushima T, Kawakami S, Fujii Y, Masuda H, Saito K, Koga F. Gasless, single port access, ultrasound guided, clampless partial nephrectomy: MIES partial nephrectomy. 25th Anniversary EAU Congress. Barcelona, Spain, 2010/4/17.
8. Koga F, Kihara K, Yoshida S, Saito K, Masuda H, Fujii Y, Kawakami S. Selective bladder-sparing protocol by induction low-dose chemoradiotherapy plus partial cystectomy against muscle-invasive bladder cancer. 2010 Genitourinary Cancer Symposium. San Francisco, USA, 2010/3/6.
9. Koga F, Kihara K, Yoshida S, Saito K, Masuda H, Fujii Y, Kawakami S. Partial cystectomy after induction chemoradiotherapy possibly improves oncological outcomes of selective bladder-sparing protocol against muscle-invasive bladder cancer. 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/17.
10. Koga F, Fukushima H, Kawakami S, Fujii Y, Yoshida S, Ratovitski E, Trink B, Kihara K. Loss of p63 ( $\Delta$ NP63a) promotes invasion of urothelial carcinomas. 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/19.
11. Komai Y, Kawakami S, Numao N, Fujii Y, Saito K, Koga F, Yamamoto S, Yonese J, Fukui I, Kihara K. Extended biopsy- based criteria for predicting clinically insignificant prostate cancer. 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/18.
12. Kubo Y, Kawakami S, Numao N, Kitayama S, Takazawa R, Yokoyama M, Saito K, Uragami S, Yamamoto S, Fujii Y, Yonese J, Tujii T, Fukui I, Kihara K. A simple and effective local anesthetic method for three-dimensional extended prostate biopsy: a prospective confirmatory study with an expanded cohort. 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/17.
13. Masuda H, Kawakami S, Fujii Y, Koga F, Saito K, Numao N, Kijima T, Yoshida S, Yamamoto S, Yonese J, Fukui I, Kihara K. Performance of free PSA better than total PSA for estimation of prostate volume in elderly men without prostate cancer. 2010 Annual Meeting AUA. San Francisco, USA, 2010/5/29.
14. Masuda H, Kawakami S, Fujii Y, Koga F, Saito K, Yonese J, Fukui I, Kihara K. Performance of free PSA better

- than total PSA for estimation of prostate volume in elderly men without prostate cancer. Nagoya Shinshu Forum 2010. Matsumoto, 2010/10/2.
15. Masuda H, Kawakami S, Fujii Y, Koga F, Saito K, Yonese J, Fukui I, Kihara K. Correlation of lower urinary tract symptoms with Gleason score and transition zone volume in prostate cancer patients. Nagoya Shinshu Forum 2010. Matsumoto, 2010/10/2.
  16. Numao N, kawakami S, Kubo Y, Yamamoto S, Yonese J, Kihara K, Fukui I. Should we change number of sampling cores according to clinical variables at an initial prostate biopsy? 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/17.
  17. Saito K, Kihara K, Kawakami S, Fujii Y, Masuda H, Koga F. Gasless two port access total nephroureterectomy: MIES total nephroureterectomy, 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/17.
  18. Saito K, Urakami S, Komai Y, Kijima T, Sukegawa G, Ito M, Kubo Y, Suyama T, Kitsukawa S, Okubo Y, Yamamoto S, Yonese J, Fukui I. The impact of C-reactive protein kinetics on survival in patients with advanced urothelial carcinoma treated with gemcitabine, etoposide and cisplatin, 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/17.
  19. Huang T, Kohno Y, Fukui N, Kageyama Y, Higashi Y. A single intravesical instillation of pirarubicin immediately after TUR-Bt decreases short term recurrences in patients with pTa/pT1 bladder cancer: The outcome in Saitama Cancer Center. The 20<sup>th</sup> Annual Meeting of the International Urological Conference of Taiwan. Taipei, Taiwan, 2010/10/13.
  20. Yokoyama M, kawakami S, Numao N, Fujii Y, Koga F, Saito K, Yonese J, Yuichi Y, Fukui I, Kihara K. Smaller prostate volume is a risk factor of high grade prostate cancer detected by the three-dimensional 26-core biopsy. 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/17.
  21. Yoshida S, Masuda H, Ishii C, Tanaka H, Komai Y, Numao N, Saito K, Koga F, Fujii Y, Kawakami S, Kihara K. Diffusion-weighted magnetic resonance imaging in diagnosis of upper urinary tract cancer. 25<sup>th</sup> Anniversary EAU Congress. Barcelona, Spain, 2010/4/17.

#### Invited Lecture and International Symposium

1. Fujii Y, Kijima T, Kawakami S, Kihara K. Sequential therapy for advanced prostate cancer. Ochanomizu Prostate Cancer Workshop. Tokyo, 2010/11/22.