

**Study Name:**  
Spanish Bladder Cancer Study (SBCS)

**Institution/s:**  
National Cancer Institute Division of Cancer  
Epidemiology and Genetics (**NCI-DCEG**), Rockville, MD

Institut Municipal d'Investigacio Medica (**IMIM**),  
Barcelona, Spain

**Principal Investigators:**  
**NCI-DCEG:** Mustafa Dosemeci, Debra Silverman,  
Nathanial Rothman.

**Institution/s address:**  
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**IMIM:** Manolis Kogevinas, Núria Malats, Paco Real

**IMIM**  
Centre for Research in Environmental Epidemiology  
(CREAL), Respiratory and Environmental Health  
Research Unit,  
Dr Aiguader 80, 08003 Barcelona, Spain

**Key References:**  
Samanic C et al. *Cancer Epidemiol Biomarkers Prev.*  
2006 Jul;15(7):1348-54  
Garcia-Closas M et al. *Lancet.* 2005 Aug 20-  
26;366(9486):649-59  
Lopez-Knowles E et al. *Clin Cancer Res.* 2006 Oct  
15;12(20 Pt 1):6029-36

**Additional researchers:**  
Kenneth Cantor, NCI-DCEG  
Joan Fortuny, IMIM  
Montserrat Garcia-Closas, NCI-DCEG  
Lee Moore, NCI-DCEG  
Cristiane Nascimento-Murta, IMIM  
Cristina Villanueva, IMIM

**Study Design:**  
Hospital based Case-Control  
**ICD-0-3 morphology codes:** 81203, 80703,  
81303, 81403

**Matching factors:**  
Gender, age, hospital/region  
**Follow up of cases?** Yes

**Country:**  
Spain  
**Expected time of follow-up?**  
64 - 90 months

Urinary Bladder ICD-0-3 morphology codes: Transitional cell carcinoma (81203); Papillary carcinoma (81303); Squamous cell carcinoma (80703); Adenocarcinoma (81403); Leiomyosarcoma (88903)

	Cases	Controls
<b>Years of enrollment</b>	1998-2001	1998-2001
<b>Source population</b>	18 hospitals in 5 regions of Spain	18 hospitals in 5 regions of Spain
<b>Response rate (enrolled/eligible)</b>	84%	88%
<b>Total number enrolled</b>	1219	1271
<b>Subjects with DNA</b>	1150	1149
<b>Ethnic origin</b>	99% Caucasian	99% Caucasian
<b>Age: mean (range)</b>	66 (21-80)	65(21-80)
<b>Gender: % males</b>	87%	87%

Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc..)	x	x
Active smoking	x	x
Passive smoking	x	x
Occupational exposures	x	x
Residential history	x	x
Water chlorination byproducts	x	x
Arsenic exposure	-	-
Other environmental exposures	x	x
Hair dye use	x	x
Drug use	x	x
Medical History	x	x
Family History	x	x
Quality of life	x	x
Diet/nutrition	x	x
Caffeine intake	x	x
Fluid intake	x	x

Urine pH measurements	X	X
Other information, please specify	-	-

Biological Samples	Cases	Controls
Blood DNA	X	X
Buccal DNA	X	X
Serum/plasma	X	X
Cryopreserved whole blood / lymphocytes	X	X
Red blood cells	X	X
Urine samples	-	-
Toenail clippings	X	X
Others, please specify	-	-
Paraffin tissue blocks	X	
Frozen tissue	-	

#### For Cases Only

Information at time of diagnosis	
Histological confirmation	X
Number of tumors	X
Tumor site	X
Tumor size	X
Tumor grade	X
Growth pattern	X
Treatment of primary tumor	-
Stage	X
Other information, please specify	-

Follow-up information	
Treatment information	X
Tumor recurrence	X
Tumor progression	-
Survival	X
Histological confirmation	X
Number of tumors	X
Tumor site	X
Tumor size	X
Tumor grade	X
Growth pattern	X
Stage	X
Active smoking	X
Occupational exposures	X
Drug use	X
Medical History	X
Quality of life	X
Caffeine intake	X
Fluid intake	X
Other information , please specify	-

**Study Name :**  
New England Bladder Cancer Study

**Institutions:**  
National Cancer Institute Division of Cancer  
Epidemiology and Genetics (NCI-DCEG)  
Dartmouth Medical School  
New Hampshire Department of Health and Human  
Services  
Maine Department of Health and Human Services,  
Vermont Cancer Registry

**Principal Investigators:**

**NCI-DCEG:** Debra Silverman, Dalsu Baris

**Dartmouth Medical School:** Margaret Karagas, Richard  
Wadell

**Department of Health and Human Services, Maine  
Cancer Registry:** Molly Schwenn

**VT Cancer Registry:** Alison Johnson

**Key References:**  
Study recently completed

**Institution address:**

**NCI-DCEG:**  
6120 Executive Boulevard  
Bethesda, MD USA 20852-7234

**Dartmouth Medical School:**  
7927 Rubin Building, One Medical Center Drive,  
Lebanon, NH 03756

**Department of Health and Human Services, Maine  
Cancer Registry:**

Key Bank Plaza, 4th Floor  
Augusta, ME 04333

**VT Cancer Registry:**  
108 Cherry Street, Burlington, VT 05401

**Additional researchers:**  
Angeline Andrew (Dartmouth Medical School)  
Bill Apao (Vermont)  
Laura Beane-Freeman (NCI)  
Ken Cantor (NCI, Lead Investigator)  
Sai Cherala (New Hampshire)  
Montserrat Garcia-Closas (NCI)  
Joanne Colt (NCI, Lead Investigator)  
Jay Lubin (NCI)  
Lee Moore (NCI)  
Nathaniel Rothman (NCI, Lead Investigator)  
Alan Schned (Dartmouth Medical School)  
Castine Verrill (Maine)

**Study Design:** Population based Case-Control  
**ICD-9 code:** 189.8  
**ICD-0-3 morphology codes:** 7400/6, 7400/7,  
8010/2, 8032/3, 8041/3, 8053/0, 8070/3, 8120/3,  
8130/3, 8140/3

**Matching factors:** age and sex  
**Follow up of cases?** Feasibility  
study is being initiated

**Country:** USA  
**Expected time of follow-  
up?**

Urinary Bladder ICD-0-3 morphology codes: Transitional cell carcinoma (81203); Papillary carcinoma (81303);  
Squamous cell carcinoma (80703); Adenocarcinoma (81403); Leiomyosarcoma (88903)

	Cases	Controls
<b>Years of enrollment</b>	2001-2004	2001-2004
<b>Source population</b>	Newly diagnosed incident cases in the states of New Hampshire, Maine and Vermont	Frequency matched controls selected from Department of Motor Vehicle (<65 years of age) and Centers of Medicare and Medicaid Services (>=65 years of age)
<b>Response rate (enrolled/eligible)</b>	65%	65%
<b>Total number enrolled</b>	1,213	1,418
<b>Subjects with DNA</b>	1,134	1,306
<b>Ethnic origin</b>	94% Caucasian	94% Caucasian
<b>Age: mean (range)</b>	65.16 (30-79)	64.52 (30-79)
<b>Gender: % males</b>	76% males	73%

Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc..)	x	x

Active smoking	X	X
Passive smoking	X	X
Occupational exposures	X	X
Residential history	X	X
Water chlorination byproducts	X	X
Arsenic exposure	X	X
Other environmental exposures	X	X
Hair dye use	X	X
Drug use	X	X
Medical History	X	X
Family History	X	X
Quality of life	-	-
Diet/nutrition	X	X
Caffeine intake	X	X
Fluid intake	X	X
Urine pH measurements	X	X
Other information, please specify	-	-

Biological Samples	Cases	Controls
Blood DNA	X	X
Buccal DNA	X	X
Serum/plasma	X	X
Cryopreserved whole blood / lymphocytes	X	X
Red blood cells	X	X
Urine samples	X	X
Toenail clippings	X	X
Others, please specify	-	-
Paraffin tissue blocks	X	
Frozen tissue	-	

#### For Cases Only

Information at time of diagnosis	
Histological confirmation	X
Number of tumors	X
Tumor site	X
Tumor size	X
Tumor grade	X
Growth pattern	X
Treatment of primary tumor	-
Stage	X
Other information, please specify	-
Follow-up information	
Treatment information	-
Tumor recurrence	-
Tumor progression	-
Survival	-
Histological confirmation	-
Number of tumors	-
Tumor site	-
Tumor size	-
Tumor grade	-
Growth pattern	-
Stage	-
Active smoking	-
Occupational exposures	-
Drug use	-
Medical History	-
Quality of life	-
Caffeine intake	-
Fluid intake	-
Other information , please specify	-

**Study Name:**

Nijmegen Bladder Cancer Study

**Institution:**

Radboud University Nijmegen Medical Centre (RUNMC)  
Nijmegen, the Netherlands  
Comprehensive Cancer Centre East (IKO)  
Nijmegen, the Netherlands

**Principal Investigators:**

Prof. Dr. Lambertus (Bart) A. Kiemeny (RUNMC)  
Dr. Katja K.H. Aben (IKO)

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Radboud University Nijmegen Medical Centre (RUNMC)  
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P.O. Box 9101  
NL-6500 HB Nijmegen, the Netherlands

Comprehensive Cancer Centre East (IKO)  
P.O. Box 1281  
NL-6501 BG Nijmegen, the Netherlands

**Key References:**

Wetzels JF, Kiemeny LA, Swinkels DW, Willems HL, Heijer MD. Age- and gender-specific reference values of estimated GFR in Caucasians: The Nijmegen Biomedical Study. *Kidney Int.* 2007 Jun 13; [Epub ahead of print]

**Additional researchers:**

Prof. Dr. J. Alfred (Fred) Witjes, RUNMC  
Dr. Martin den Heijer, RUNMC  
Dr. Dorine Swinkels, RUNMC  
Dr. Barbara Franke, RUNMC

**Study Design:**

Population-based case-control.  
Cases are retrospectively identified and recruited from the population-based cancer registry of IKO

**Matching factors:****Country:**

the Netherlands

**ICD-0-3 morphology codes:**

8000, 8020, 8030, 8041, 8070, 8071, 8120, 8130, 8140, 8246, 8481, 8490, 8560, 8700

**Follow up of cases? Yes****Expected time of follow-up?**

Currently 1-12 years

	Cases	Controls
<b>Years of enrollment</b>	2007 (years of diagnosis 1995-2006)	2002-2003
<b>Source population</b>	IKO Population-based cancer registry, covering 8 hospitals and 1.3 million inhabitants	Nijmegen Municipal Population Administration covering 150,000 inhabitants
<b>Response rate (enrolled/eligible)</b>	66%	9,350 / 21,756 -> 43%
<b>Total number enrolled</b>	1453	9,350
<b>Subjects with DNA</b>	1393	6468
<b>Ethnic origin</b>	>99% Caucasian	>99% Caucasian
<b>Age: mean (range)</b>	61.9 (25-93)	54 (18 – 100)
<b>Gender: % males</b>	82%	46
Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc..)	x	x
Active smoking	x	x
Passive smoking		
Occupational exposures	x	x
Residential history		
Water chlorination byproducts		
Arsenic exposure		
Other environmental exposures		
Hair dye use	x	
Drug use	x	x
Medical History	x	x
Family History	x	x
Quality of life		
Diet/nutrition	x	x
Caffeine intake		x
Fluid intake	x	

Urine pH measurements

Other information, please specify:

\* incl. urinary tract infections treated with antibiotics, bladder stones, catheter, X-ray exposure abdomen/pelvis

# exposure during conception / pregnancy first child, including cosmetic products, X-ray, anaesthetics, cytostatics, industrial cleaners, paint, pesticides.

physical activity, artificial sweeteners, urination frequency

physical activity

Biological Samples	Cases	Controls
Blood DNA	X	X
Buccal DNA	-	-
Serum/plasma	-	X
Cryopreserved whole blood / lymphocytes	-	-
Red blood cells	-	-
Urine samples	-	X
Toenail clippings	-	-
Others, please specify	-	-
Paraffin tissue blocks	X	
Frozen tissue	-	

### For Cases Only

Information at time of diagnosis	
Histological confirmation	X
Number of tumors	
Tumor site	X
Tumor size	
Tumor grade	X
Growth pattern	
Treatment of primary tumor	X
Stage	X
Other information, please specify	
Follow-up information	
Treatment information	
Tumor recurrence	X
Tumor progression	X
Survival	X
Histological confirmation	X
Number of tumors	X
Tumor site	X
Tumor size	X
Tumor grade	X
Growth pattern	X
Stage	X
Active smoking	X
Occupational exposures	
Drug use	
Medical History	X
Quality of life	
Caffeine intake	
Fluid intake	
Other information , please specify	

**Study Name:**  
M.D. Anderson Bladder Cancer Study

**Institution:**  
The University of Texas M. D. Anderson Cancer Center

**Principal Investigators:**  
Xifeng Wu

**Institution address:**  
1515 Holcombe Blvd, Houston, TX 77030

**Key References:**  
**PMID**

Zhao H., et al. J Urol. 2003 Feb;169(2):714-7.  
Hazra A., et al Cancer Res. 2003 Mar 15;63(6):1157-9.  
Schabath MB., et al. J Natl Cancer Inst. 2003 Apr  
2;95(7):540-7.

**Additional researchers:**

**Study Design:**  
Hospital based Case-Control  
**ICD-0-3 morphology codes:**  
189.8

**Matching factors:**  
Age, gender, ethnicity  
**Follow up of cases? Yes**

**Country:**  
USA  
**Expected time of follow-up?**

Urinary Bladder ICD-0-3 morphology codes: Transitional cell carcinoma (81203); Papillary carcinoma (81303); Squamous cell carcinoma (80703); Adenocarcinoma (81403); Leiomyosarcoma (88903)

	Cases	Controls
<b>Years of enrollment</b>	1999-2009	1999-2009
<b>Source population</b>	M.D. Anderson Hospital	Houston Metropolitan Area
<b>Response rate (enrolled/eligible)</b>	92%	75%
<b>Total number enrolled</b>	755	708
<b>Subjects with DNA</b>	755	708
<b>Ethnic origin</b>	Caucasian 89.3% Hispanic 4.7% African American 4.7% Other 1.3%"	Matched to cases
<b>Age: mean (range)</b>	63.4 (18-89)	62.5 (21-89)
<b>Gender: % males</b>	78.6%	77.4%

Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc..)	x	x
Active smoking	x	x
Passive smoking	x	x
Occupational exposures	x	x
Residential history	-	-
Water chlorination byproducts	-	-
Arsenic exposure	-	-
Other environmental exposures	x	x
Hair dye use	x	x
Drug use	-	-
Medical History	x	x
Family History	x	x
Quality of life	-	-
Diet/nutrition	x	x
Caffeine intake	-	-
Fluid intake	x	x
Urine pH measurements	-	-
Other information, please specify	-	-

Biological Samples	Cases	Controls
Blood DNA	x	x
Buccal DNA	-	-
Serum/plasma	x	x
Cryopreserved whole blood / lymphocytes	-	-
Red blood cells	-	-
Urine samples	-	-
Toenail clippings	-	-
Others, please specify	-	-

Paraffin tissue blocks	-
Frozen tissue	-

**For Cases Only**

**Information at time of diagnosis**

Histological confirmation	-
Number of tumors	-
Tumor site	-
Tumor size	-
Tumor grade	-
Growth pattern	-
Treatment of primary tumor	-
Stage	-
Other information, please specify	-

**Follow-up information**

Treatment information	-
Tumor recurrence	-
Tumor progression	-
Survival	-
Histological confirmation	-
Number of tumors	-
Tumor site	-
Tumor size	-
Tumor grade	-
Growth pattern	-
Stage	-
Active smoking	-
Occupational exposures	-
Drug use	-
Medical History	-
Quality of life	-
Caffeine intake	-
Fluid intake	-
Other information , please specify	-

**Study Name:**  
The Los Angeles-Shanghai Bladder Cancer Study

**Institution:**  
USC/Norris Comprehensive Cancer Center  
University of Minnesota Cancer Center

**Principal Investigators:**  
Ronald K. Ross (deceased, now Malcolm C. Pike)  
USC

**Institution address:**  
USC/Norris Cancer Center  
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Los Angeles, California 90089

Jian-Min Yuan, subcontract to University of  
Minnesota

University of Minnesota Cancer Center  
1300 South Second Street, Suite 300  
Minneapolis, Minnesota 55454

**Key References:**  
(1) Int J Cancer 2004 110: 417; (2) Carcinogenesis 2003  
24: 1645; (3) Eur J Epidemiol 2003 18: 659; (4) CEBP  
2003 12: 503; (5) Carcinogenesis, 24: 483-489, 2003; (6) J  
Natl Cancer Inst 2001 93: 538; (7) Int J Cancer 2001 91  
575; (8) Br J Cancer 2000 82: 1364.

**Additional researchers:**  
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USC: J. Esteban Castelao, David Conti,  
Victoria Cortessis, Manuela Gago-Dominguez,  
Mariana Stern, Duncan Thomas,  
David Van Den Berg

**Study Design:** Population based Case-  
Control

**Matching factors:** Age, gender, sex

**Country:** United States and China

**ICD-0-3 morphology codes:** -

**Follow up of cases?-**

**Expected time of follow-up?-**

Urinary Bladder ICD-0-3 morphology codes: Transitional cell carcinoma (81203); Papillary carcinoma (81303);  
Squamous cell carcinoma (80703); Adenocarcinoma (81403); Leiomyosarcoma (88903)

	Cases	Controls
<b>Years of enrollment</b>	<b>LA:</b> 1988-1999 <b>Shanghai:</b> 1996-1999	<b>LA:</b> 1988-1999 <b>Shanghai:</b> 1996-1999
<b>Source population</b>	<b>LA:</b> non-Asian residents of Los Angeles County, California <b>Shanghai:</b> Han Chinese residents of city of Shanghai	<b>LA:</b> non-Asian residents of Los Angeles County, California <b>Shanghai:</b> Han Chinese residents of city of Shanghai
<b>Response rate (enrolled/eligible)</b>	<b>LA:</b> 70% (1671/2384) <b>Shanghai:</b> 83% (622/749)	<b>LA:</b> 69% 1 <sup>st</sup> and 31% ≥2 <sup>nd</sup> eligible controls <b>Shanghai:</b> 84%
<b>Total number enrolled</b>	<b>LA:</b> 1671 <b>Shanghai:</b> 622	<b>LA:</b> 1568 <b>Shanghai:</b> 610
<b>Subjects with DNA</b>	<b>LA:</b> 723 <b>Shanghai:</b> 545	<b>LA:</b> 760 <b>Shanghai:</b> 537
<b>Ethnic origin</b>	<b>LA:</b> 92.3% non- Hispanic white 4.3% Hispanic white 3.3% African American 0.1% Native American <b>Shanghai:</b> Han Chinese	
<b>Age: mean (range)</b>	<b>LA:</b> 56 (25-69) <b>Shanghai:</b>	<b>LA:</b> 56 (25-69) <b>Shanghai:</b>
<b>Gender: % males</b>	<b>LA:</b> 78.6% <b>Shanghai:</b> 79%	<b>LA:</b> 78.0% <b>Shanghai:</b> 77%

Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc..)	X	X
Active smoking	X	X
Passive smoking among lifelong nonsmokers	X	X
Occupational exposures	X	X
Residential history	-	-
Water chlorination byproducts	-	-
Arsenic exposure	-	-
Other environmental exposures	X	X
Hair dye use	X	X
Drug use	X	X
Medical History	X	X
Family History	X	X
Quality of life	-	-
Diet/nutrition	X	X
Caffeine intake (incomplete coverage?)	X	X
Fluid intake (incomplete coverage?)	X	X
Urine pH measurements	X	X
Other information, use of hormone for women only	X	X

Biological Samples	Cases	Controls
Blood DNA	X	X
Buccal DNA	-	-
Serum/plasma	X	X
Cryopreserved whole blood / lymphocytes	-	-
Red blood cells	X	X
Urine samples	X	X
Toenail clippings	-	-
Others, please specify	-	-
Paraffin tissue blocks	X	
Frozen tissue	-	

#### For Cases Only

Information at time of diagnosis	
Histological confirmation	-
Number of tumors	-
Tumor site	-
Tumor size	-
Tumor grade	-
Growth pattern	-
Treatment of primary tumor	-
Stage	-
Other information, please specify	-
Follow-up information	
Treatment information	-
Tumor recurrence	-
Tumor progression	-
Survival	-
Histological confirmation	-
Number of tumors	-
Tumor site	-
Tumor size	-
Tumor grade	-
Growth pattern	-
Stage	-
Active smoking	-
Occupational exposures	-
Drug use	-
Medical History	-
Quality of life	-
Caffeine intake	-
Fluid intake	-
Other information , please specify	-

**Study Name:**  
New Hampshire Bladder Cancer Study

**Institution:**  
Dartmouth Medical School Section of biostatistics and epidemiology

**Principal Investigators:**  
Margaret R Karagas

**Institution address:**  
7927 Rubin Building  
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Lebanon, NH 03756"

**Key References:**  
Karagas MR. et al. Environ Health Perspect. 1998 Aug;106 Suppl 4:1047-50.; Danaee H. et al. Oncogene. 2002 Jul 25;21(32):4894-9.; Andrew AS. et al. Int J Cancer. 2004 Apr 20;109(4):581-6.

**Additional researchers:**  
Alan Schned  
Karl Kelsey  
Angeline Andrew  
Carmin Marsit

**Study Design:**  
Population-based Case-Control  
**ICD-0-3 morphology codes:**  
**All**

**Matching factors:**  
None  
**Follow up of cases?**  
**Yes**

**Country:**  
USA  
**Expected time of follow-up?**  
5-15 years or longer

Urinary Bladder ICD-0-3 morphology codes: Transitional cell carcinoma (81203); Papillary carcinoma (81303); Squamous cell carcinoma (80703); Adenocarcinoma (81403); Leiomyosarcoma (88903)

	Cases	Controls
<b>Years of enrollment</b>	1994-2001	1994-2001
<b>Source population</b>	New Hampshire USA	New Hampshire USA
<b>Response rate (enrolled/eligible)</b>	85%	70%
<b>Total number enrolled</b>	847	1091
<b>Subjects with DNA</b>	728	995
<b>Ethnic origin</b>	>90% White, Non-Hispanic	
<b>Age: mean (range)</b>	62	61
<b>Gender: % males</b>	84%	76%

Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc..)	x	x
Active smoking	x	x
Passive smoking	x	x
Occupational exposures	x	x
Residential history	x	x
Water chlorination byproducts	x	x
Arsenic exposure	x	x
Other environmental exposures	x	x
Hair dye use	x	x
Drug use	x	x
Medical History	x	x
Family History	x	x
Quality of life	-	-
Diet/nutrition	x	x
Caffeine intake	x	x
Fluid intake	x	x
Urine pH measurements	-	-
Other information, please specify	-	-

Biological Samples	Cases	Controls
Blood DNA	x	x
Buccal DNA	x	x
Serum/plasma	x	x
Cryopreserved whole blood / lymphocytes	x	x
Red blood cells	x	x
Urine samples	-	x
Toenail clippings	x	x

Others, please specify	-	-
Paraffin tissue blocks	X	
Frozen tissue	-	

**For Cases Only**

<b>Information at time of diagnosis</b>		
Histological confirmation	X	
Number of tumors	X	
Tumor site	X	
Tumor size	X	
Tumor grade	X	
Growth pattern	X	
Treatment of primary tumor	X	
Stage	X	
Other information, please specify % of tumor	X	
<b>Follow-up information</b>		
Treatment information	X	
Tumor recurrence	X	
Tumor progression	X	
Survival	X	
Histological confirmation	X	
Number of tumors	X	
Tumor site	X	
Tumor size	X	
Tumor grade	X	
Growth pattern	-	
Stage	X	
Active smoking	X	
Occupational exposures	-	
Drug use	X	
Medical History	X	
Quality of life	-	
Caffeine intake	-	
Fluid intake	-	
Other information , please specify, passive smoking	X	

**Study Name:**

Leeds Bladder Cancer Study (Molecular Epidemiology of DNA repair and Bladder Cancer)

**Institution:**

Cancer Research UK Clinical Centre in Leeds

**Principal Investigators:**

Anne Kiltie

**Institution address:**

St James's University Hospital, Beckett St, Leeds LS9 7TF

**Key References:**

Sak SC, Barrett J, Paul A, Bishop DT, Kiltie AE (2005) *British Journal of Cancer* 92:2262-2265.  
 Sak SC, Barrett JH, Paul AB, Bishop DT, Kiltie AE (2006) *Cancer Epidemiology Biomarkers and Prevention* 15:2537-41.

**Additional researchers:**

D Tim Bishop, CR-UK  
 Jennifer H Barrett, CR-UK  
 Sei Chung Sak, now NHS  
 Alan B Paul, NHS

**Study Design:**

Hospital-based case control

**Matching factors:**

Age and gender

**Country:**

UK

**ICD-0-3 morphology codes:**

81203

**Follow up of cases? Yes****Expected time of follow-up?**

Currently 3-5 years

Urinary Bladder ICD-0-3 morphology codes: Transitional cell carcinoma (81203); Papillary carcinoma (81303); Squamous cell carcinoma (80703); Adenocarcinoma (81403); Leiomyosarcoma (88903)

	Cases	Controls
<b>Years of enrollment</b>	2002-2004	2002-2004
<b>Source population</b>	County of West Yorkshire UK	County of West Yorkshire UK
<b>Response rate (enrolled/eligible)</b>	547/549	Approx 80%
<b>Total number enrolled</b>	547	579
<b>Subjects with DNA</b>	547	579
<b>Ethnic origin</b>	98.5% Caucasian	98.5% Caucasian
<b>Age: mean (range)</b>	72.8 years	71.9 years
<b>Gender: % males</b>	71%	65%

Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc..)	x	x
Active smoking	x	x
Passive smoking	-	-
Occupational exposures	x	x
Residential history	x	x
Water chlorination byproducts	-	-
Arsenic exposure	-	-
Other environmental exposures	-	-
Hair dye use	-	-
Drug use	-	-
Medical History	-	-
Family History	x	x
Quality of life	-	-
Diet/nutrition	-	-
Caffeine intake	-	-
Fluid intake	-	-
Urine pH measurements	-	-
Other information, please specify	-	-

Biological Samples	Cases	Controls
Blood DNA	x	x
Buccal DNA	-	-
Serum/plasma	-	-
Cryopreserved whole blood / lymphocytes	-	-
Red blood cells	-	-
Urine samples	-	-
Toenail clippings	-	-
Others, please specify	-	-
Paraffin tissue blocks	x	-
Frozen tissue	-	-

## For Cases Only

Information at time of diagnosis	
Histological confirmation	X
Number of tumors	X
Tumor site	X
Tumor size	X
Tumor grade	X
Growth pattern	X
Treatment of primary tumor	X
Stage	X
Other information, please specify	-
Follow-up information	
Treatment information	X
Tumor recurrence	X
Tumor progression	X
Survival	X
Histological confirmation	X
Number of tumors	X
Tumor site	X
Tumor size	X
Tumor grade	X
Growth pattern	X
Stage	X
Active smoking	X
Occupational exposures	X
Drug use	X
Medical History	X
Quality of life	-
Caffeine intake	-
Fluid intake	-
Other information , please specify	-

**Study Name:**  
Torino bladder cancer

**Institution:**  
Dipartimento di Scienze Biomediche e Oncologia  
Umana

**Principal Investigators:**  
Giuseppe Matullo  
Paolo Vineis

**Institution address:**  
Via Santena 7 10126 Torino Italy

**Key References:**

**Additional researchers:**  
Carlotta Sacerdote

**Study Design:**  
Hospital-based Case-Control  
**ICD-0-3 morphology codes:**  
**81203, 81303, 80703, 81403, 81402**

**Matching factors:**  
**Follow up of cases? Yes**

**Country:**  
Italy  
**Expected time of follow-up? 15/07/2007**

Urinary Bladder ICD-0-3 morphology codes: Transitional cell carcinoma (81203); Papillary carcinoma (81303); Squamous cell carcinoma (80703); Adenocarcinoma (81403); Leiomyosarcoma (88903)

	Cases	Controls
<b>Years of enrollment</b>	1994-2007	1994-2007
<b>Source population</b>	Torino metropolitan area	Torino metropolitan area
<b>Response rate (enrolled/eligible)</b>		
<b>Total number enrolled</b>	439	512
<b>Subjects with DNA</b>	422	414
<b>Ethnic origin</b>	100% Italian Caucasian	
<b>Age: mean (range)</b>	57.3 (42-74)	57.3 (40-74)
<b>Gender: % males</b>	100%	100%

Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc..)	x	x
Active smoking	x	x
Passive smoking	x	x
Occupational exposures	x	x
Residential history	-	-
Water chlorination byproducts	-	-
Arsenic exposure	-	-
Other environmental exposures	-	-
Hair dye use	-	-
Drug use	x	x
Medical History	-	-
Family History	x	x
Quality of life	-	-
Diet/nutrition	x	x
Caffeine intake	x	x
Fluid intake	x	x
Urine pH measurements	-	-
Other information, please specify	-	-

Biological Samples	Cases	Controls
Blood DNA	x	x
Buccal DNA	-	-
Serum/plasma	x	x
Cryopreserved whole blood / lymphocytes	x	-
Red blood cells	-	-
Urine samples	x	x
Toenail clippings	-	-
Others, please specify	-	-
Paraffin tissue blocks	-	-
Frozen tissue	-	-

**For Cases Only**

Information at time of diagnosis	
Histological confirmation	X
Number of tumors	-
Tumor site	X
Tumor size	X
Tumor grade	X
Growth pattern	-
Treatment of primary tumor	X
Stage	-
Other information, please specify Morphology	X
Follow-up information	
Treatment information	-
Tumor recurrence	-
Tumor progression	-
Survival	X
Histological confirmation	-
Number of tumors	-
Tumor site	-
Tumor size	-
Tumor grade	-
Growth pattern	-
Stage	-
Active smoking	-
Occupational exposures	-
Drug use	-
Medical History	-
Quality of life	-
Caffeine intake	-
Fluid intake	-
Other information , please specify: Cause of death	X

**Study Name:**  
Brescia bladder cancer case-control study

**Institution:**  
Institute of Occupational Health, University of Brescia,  
Italy

**Principal Investigators:**  
Stefano Porru

**Institution address:**  
P.le Spedali Civili, 1  
25125 Brescia - Italy

**Key References:**  
Hung RJ. et al. *Carcinogenesis*. 2004 Jun;25(6):973-8.  
Hung RJ. et al. *Int J Cancer*. 2004 Jul 1;110(4):598-604.  
Hung RJ. et al. *Cancer Epidemiol Biomarkers Prev*. 2004  
Jun;13(6):1013-21.

**Additional researchers:**  
Cecilia Arici, Marcello Campagna, Angela Carta,  
Donatella Placidi, Antonio Scotto di Carlo

**Study Design:** Hospital-based case  
control

**Matching factors:** Age, gender,  
and hospital of admission

**Country:** Italy

**ICD-0-3 morphology codes:**  
8010/2, 8050/3, 8070/3, 8120/2,  
8120/3, 8130/2, 8130/3, 8246/3,  
8560/3

**Follow up of cases?**  
Yes (from 2007)

**Expected time of follow-up?**  
64 -120 months

Urinary Bladder ICD-0-3 morphology codes: Transitional cell carcinoma (81203); Papillary carcinoma (81303); Squamous cell carcinoma (80703); Adenocarcinoma (81403); Leiomyosarcoma (88903)

	Cases	Controls
<b>Years of enrollment</b>	1997-2000	1997-2000
<b>Source population</b>	Province of Brescia	Province of Brescia
<b>Response rate (enrolled/eligible)</b>	93%	97%
<b>Total number enrolled</b>	216	220
<b>Subjects with DNA</b>	200	214
<b>Ethnic origin</b>	100% Caucasian	100% Caucasian
<b>Age: mean (range)</b>	63 (22-80)	63 (22-79)
<b>Gender: % males</b>	100	100

Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc..)	x	x
Active smoking	x	x
Passive smoking (only for non smokers-ex smokers)	x	x
Occupational exposures	x	x
Residential history	x	x
Water chlorination byproducts	x	x
Arsenic exposure	-	-
Other environmental exposures	x	x
Hair dye use (available after follow up)	x	-
Drug use (available after follow up)	x	-
Medical History (available after follow up)	x	-
Family History	-	-
Quality of life	-	-
Diet/nutrition	x	x
Caffeine intake	x	x
Fluid intake	x	x
Urine pH measurements	-	-
Other information, please specify (alcohol, tea, soft drinks; diuresis)	x	x

Biological Samples	Cases	Controls
Blood DNA	x	x
Buccal DNA	-	-
Serum/plasma	x	x
Cryopreserved whole blood / lymphocytes	x	x
Red blood cells	x	x
Urine samples	-	-
Toenail clippings	-	-
Others, please specify	-	-
Paraffin tissue blocks	-	-

Frozen tissue -

**For Cases Only**

**Information at time of diagnosis**

Histological confirmation	X
Number of tumors (available after follow up)	X
Tumor site	X
Tumor size	-
Tumor grade	X
Growth pattern	X
Treatment of primary tumor	X
Stage	X
Other information, please specify	-

**Follow-up information**

Treatment information	X
Tumor recurrence	X
Tumor progression	X
Survival	X
Histological confirmation	X
Number of tumors	X
Tumor site	X
Tumor size	X
Tumor grade	X
Growth pattern	X
Stage	X
Active smoking	X
Occupational exposures	X
Drug use	X
Medical History	X
Quality of life	-
Caffeine intake	X
Fluid intake	X
Other information , please specify (as above)	X

**Study Name:**

The Belgian case control study on bladder cancer

**Institution:**Acad.Huisartsgeneeskunde, Catholic University of Leuven (KUL), Belgium  
Comprehensive Cancer Institute Limburg, Belgium**Principal Investigators:**Maurice Zeegers  
Frank Buntinx**Institution address:**Acad.Huisartsgeneeskunde, KUL  
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3000 Leuven  
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Tel 32/(0)16 33 74 93**Key References:**Kellen E., et al. *Int J Cancer*. 2006 May 15;118(10):2572-8., Kellen E., et al.. *Int J Urol*. 2006 Sep;13(9):1180-4., Kellen E., et al.. *Cancer Lett*. 2007 Jan 8;245(1-2):51-60**Additional researchers:**

Eliane Kellen

**Study Design:** Population-based case control**Matching factors:** None**Country:** Belgium**ICD-0-3 morphology codes:** 81203**Follow up of cases?** No**Expected time of follow-up?** N.A.

Urinary Bladder ICD-0-3 morphology codes: Transitional cell carcinoma (81203); Papillary carcinoma (81303); Squamous cell carcinoma (80703); Adenocarcinoma (81403); Leiomyosarcoma (88903)

	Cases	Controls
<b>Years of enrollment</b>	2003-2005	2003-2005
<b>Source population</b>	Cancer registry	Population
<b>Response rate (enrolled/eligible)</b>	Not known	26%
<b>Total number enrolled</b>	200	386
<b>Subjects with DNA</b>	200	386
<b>Ethnic origin</b>	100% Caucasian	100% Caucasian
<b>Age: mean (range)</b>	67.67	64.24
<b>Gender: % males</b>	86	59

Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc.)	x	x
Active smoking	x	x
Passive smoking	-	-
Occupational exposures	x	x
Residential history	x	x
Water chlorination byproducts	-	-
Arsenic exposure	x	x
Other environmental exposures	x	x
Hair dye use	-	-
Drug use	-	-
Medical History	x	x
Family History	x	x
Quality of life	-	-
Diet/nutrition	x	x
Caffeine intake	x	x
Fluid intake	x	x
Urine pH measurements	-	-
Other information, please specify	-	-

Biological Samples	Cases	Controls
Blood DNA	x	x
Buccal DNA	x	x
Serum/plasma	x	-
Cryopreserved whole blood / lymphocytes	-	-
Red blood cells	-	-
Urine samples	-	-
Toenail clippings	-	-
Others, please specify	-	-
Paraffin tissue blocks	-	-

**For Cases Only**

Information at time of diagnosis	
Histological confirmation	X
Number of tumors	-
Tumor site	X
Tumor size	-
Tumor grade	-
Growth pattern	-
Treatment of primary tumor	-
Stage	-
Other information, please specify	-
Follow-up information	
Treatment information	-
Tumor recurrence	-
Tumor progression	-
Survival	-
Histological confirmation	-
Number of tumors	-
Tumor site	-
Tumor size	-
Tumor grade	-
Growth pattern	-
Stage	-
Active smoking	-
Occupational exposures	-
Drug use	-
Medical History	-
Quality of life	-
Caffeine intake	-
Fluid intake	-
Other information , please specify	-

**Study Name:**  
French Bladder Cancer Study (FBCS)

**Institution:**  
INSERM U794 and CNRS FRE2939

Institut Gustave Roussy, Villejuif France

**Principal Investigators:**  
INSERM/CNRS: Simone Benhamou, Alain Sarasin

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Espace Maurice Tubina (-1)  
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DBS: Agnès Laplanche

Department of Biostatistics and Epidemiology (DBS)  
Institut Gustave Roussy  
Rue Camille Desmoulins,  
94805 Villejuif cedex, France

**Key References:**  
Benhamou S. et al. Mutagenesis. 2003 Sep;18(5):445-8

**Additional researchers:**  
Stefan Michiels (DBS)  
Thomas Boulet (DBS)  
Philippe Dessen (CNRS)

**Study Design:** Hospital-based case control

**Matching factors:** Age, gender and hospital

**Country:** France

**ICD-0-3 morphology codes:** 81203

**Follow up of cases:** Yes  
(but not for all cases)

**Expected time of follow-up:** 60 months

Urinary Bladder ICD-0-3 morphology codes: Transitional cell carcinoma (81203); Papillary carcinoma (81303); Squamous cell carcinoma (80703); Adenocarcinoma (81403); Leiomyosarcoma (88903)

	Cases	Controls
<b>Years of enrollment</b>	1997-2001	1997-2001
<b>Source population</b>	3 general hospitals in Paris	3 general hospitals in Paris
<b>Response rate (enrolled/eligible)</b>	95%	95%
<b>Total number enrolled</b>	201	322
<b>Subjects with DNA</b>	195	320
<b>Ethnic origin</b>	100% Caucasian	100% Caucasian
<b>Age: mean (range)</b>	66 (30-89)	67 (34-92)
<b>Gender: % males</b>	84%	85%

Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc..)	x	x
Active smoking	x	x
Passive smoking	-	-
Occupational exposures	x	x
Residential history	-	-
Water chlorination byproducts	-	-
Arsenic exposure	-	-
Other environmental exposures	-	-
Hair dye use	-	-
Drug use	-	-
Medical History	-	-
Family History	-	-
Quality of life	-	-
Diet/nutrition	-	-
Caffeine intake	x	x
Fluid intake	-	-
Urine pH measurements	-	-
Other information, please specify	-	-

Biological Samples	Cases	Controls
Blood DNA	x	x
Buccal DNA	-	-
Serum/plasma	-	-
Cryopreserved whole blood / lymphocytes	-	-

Red blood cells	-	-
Urine samples	-	-
Toenail clippings	-	-
Others, please specify	-	-
Paraffin tissue blocks	X	
Frozen tissue	-	

For Cases Only

#### Information at time of diagnosis

Histological confirmation	X
Number of tumors	X
Tumor site	-
Tumor size	X
Tumor grade	X
Growth pattern	-
Treatment of primary tumor	X
Stage	X
Other information, please specify	-

#### Follow-up information

Treatment information	X
Tumor recurrence	X
Tumor progression	X
Survival	X
Histological confirmation	X
Number of tumors	-
Tumor site	-
Tumor size	-
Tumor grade	X
Growth pattern	-
Stage	X
Active smoking	-
Occupational exposures	-
Drug use	-
Medical History	-
Quality of life	-
Caffeine intake	-
Fluid intake	-
Other information , please specify	-

**Study Name:**

The South and East China case control study on Bladder Cancer. SEarCh

**Institution:**Department of Public Health and Epidemiology  
University of Birmingham, UK**Principal Investigators:**

Maurice Zeegers

**Institution address:**Unit of Genetic Epidemiology  
Department of Public Health and Epidemiology  
University of Birmingham, Public Health Building  
Edgbaston, Birmingham, B15 2TT England**Key References:****Additional researchers:**

Marjolein Hemelt

**Study Design:**

Hospital-based case control

**Matching factors:**Frequency matched on age, sex,  
hospital**Country:**

China

**ICD-0-3 morphology codes:**

801203, 81303, 80703

**Follow up of cases?**

No

**Expected time of follow-up?**

Urinary Bladder ICD-0-3 morphology codes: Transitional cell carcinoma (81203); Papillary carcinoma (81303); Squamous cell carcinoma (80703); Adenocarcinoma (81403); Leiomyosarcoma (88903)

	Cases	Controls
<b>Years of enrollment</b>	2005-continuing	2005-continuing
<b>Source population</b>	4 hospitals in 4 cities in China	4 hospitals in 4 cities in China
<b>Response rate (enrolled/eligible)</b>	95%	95%
<b>Total number enrolled</b>	225/yr	225/yr
<b>Subjects with DNA</b>	95%	95%
<b>Ethnic origin</b>	Asian	Asian
<b>Age: mean (range)</b>	70, 30-93	70, 30-93
<b>Gender: % males</b>	80%	80%

Questionnaire data	Cases	Controls
Demographics (age, sex, ethnicity, region, education etc..)	x	x
Active smoking	x	x
Passive smoking	x	x
Occupational exposures	x	x
Residential history	-	-
Water chlorination byproducts	-	-
Arsenic exposure	-	-
Other environmental exposures	-	-
Hair dye use	x	x
Drug use	x	x
Medical History	x	x
Family History	x	x
Quality of life	-	-
Diet/nutrition	x	x
Caffeine intake	x	x
Fluid intake	x	x
Urine pH measurements	-	-
Other information, please specify: Hairdye, physical activity	-	-

Biological Samples	Cases	Controls
Blood DNA	-	-
Buccal DNA	x	x
Serum/plasma	-	-
Cryopreserved whole blood / lymphocytes	-	-
Red blood cells	-	-
Urine samples	-	-
Toenail clippings	x	x
Others, please specify	-	-
Paraffin tissue blocks	-	-
Frozen tissue	-	-

**For Cases Only**

Information at time of diagnosis	
Histological confirmation	X
Number of tumors	-
Tumor site	X
Tumor size	-
Tumor grade	X
Growth pattern	-
Treatment of primary tumor	-
Stage	X
Other information, please specify	-
Follow-up information	
Treatment information	-
Tumor recurrence	-
Tumor progression	-
Survival	-
Histological confirmation	-
Number of tumors	-
Tumor site	-
Tumor size	-
Tumor grade	-
Growth pattern	-
Stage	-
Active smoking	-
Occupational exposures	-
Drug use	-
Medical History	-
Quality of life	-
Caffeine intake	-
Fluid intake	-
Other information , please specify	-