Background When found in the absence of antibodies to extractable nuclear antigens (ENA) or anti-double-stranded DNA (dsDNA) (i.e., monospecific), autoantibodies to the nuclear auto-antigen dense fine speckles 70 (DFS70) are purported to rule out SLE. The reported frequency of anti-DFS70 by chemiluminescence (CIA) in SLE is low compared to healthy individuals (0–5.7% vs. 1.3–23.2%), while the frequency of monospecific anti-DFS70 in SLE is even lower at 0–0.4%. There are no studies examining the frequency of anti-DFS70 in an early inception SLE cohort. This study determined the prevalence of anti-DFS70 in a multi-national, multi-ethnic early inception SLE cohort and examined demographic, clinical, and autoantibody associations.

Materials and methods Patients fulfilling ACR Classification Criteria for SLE were enrolled in the Systemic Lupus International Collaborating Clinics (SLICC) inception cohort within 15 months of diagnosis. Demographic and clinical data were collected at enrollment. ANAs were detected by indirect immunofluorescence on HEp-2 cells (ImmunoConcepts, Sacramento) and ENAs and dsDNA by an addressable laser bead immunoassay (FIDIS Connective13, TheraDiag, Paris). Anti-DFS70 antibodies were measured by CIA (Inova Diagnostics, San Diego). The association between anti-DFS70 and baseline demographic, clinical, and autoantibody profiles was assessed using univariate and multivariate logistic regression. For the most informative model, only the remaining statistically significant predictors at the 95% CI: were included, after eliminating other potential predictors individually, starting with the least likely to be associated with the outcome.

Results 1137 patients were included; 89.9% were female and 93.8% were ANA positive (Table 1). The frequency of anti-DFS70 was 7.1% [95% CI: 5.7–8.8%]. 13 of 1137 (1.1%) [95% CI: 0.6–1.9%] were positive for anti-DFS70 only (monospecific). In univariate analysis, patients with musculoskeletal activity (based on SLEDAI items) or anti-$\beta-2$ glycoprotein-1 (anti-β2GP1) were more likely to have anti-DFS70, whereas those with anti-dsDNA, anti-SSA/Ro60, anti-SSB/La, or anti-U1RNP were less likely to have anti-DFS70. In multivariate analysis, patients with musculoskeletal activity (Odd Ratio (OR) 1.25 [95% CI: 1.10, 1.41]) or anti-β2GP1 (OR 2.15, 95% CI: 1.21, 3.84) were more likely to have anti-DFS70, while those with anti-dsDNA (OR 0.53, 95% CI: 0.31, 0.92) or anti-SSB/La (OR 0.25, 95% CI:0.08, 0.82) were less likely to have anti-DFS70.

Conclusions The prevalence of anti-DFS70 in newly diagnosed SLE patients was at the high end of the range previously published for SLE (7.1% vs. 0–5.7%) and was associated with musculoskeletal activity and anti-β2GP1. However, 'monospecific' anti-DFS70 was rare (1.1%) and is potentially useful to discriminate between ANA positive healthy individuals and SLE.

| CE-22 | CANCER IN SYSTEMIC LUPUS ERYTHEMATOSUS: RESULTS FROM THE SLICC INCEPTION COHORT |

[1]Sasha Bernatsky*, [2]Murray B Urowitz, [3]John Hanly, [4]Ann E Clarke, [5]Caroline Gordon, [6]Juanita Romero-Diaz, [7]Graciela S Alarcon, [8]Sang-Cheol Bae, [9]Michelle Petri, [10]Joan Merrill, [11]Daniel J Wallace, [12]Paul R Fortin, [2]Dafna D Gladman, [13]David Isenberg, [13]Anisur Rahman, [14]Susan Manzi, [15]Ola Nived, [15]Gunnar K Sturfelt, [16]Christine A Peschken, [2]Jorge Sanchez-Guerrero, [17]Guillermo Ruiz-Irastorza, [18]Cynthia Aranow, [19]Ronald van Vollenhoven, [20]Asad A Zoma, [21]Kristjan Steinsson, [22]Munther A Khamashta, [23]Ellen Ginzler, [24]Anca Askanase, [25]Kenneth C Kalunian, [26]Mary Anne Dooley, [27]SSam Lim, [28]Diane Kamen, [29]Soren Jacobsen, [30]Manuel Ramos-Casals, [31]Murat Inanc, [32]Jennifer L Lee, [33]Rosalind Ramsey-Goldman. [1]Divisions of Rheumatology and Clinical Epidemiology, McGill University Health Centre, Montreal, QC, Canada; [2]Centre for Prognosis Studies in the Rheumatic Diseases, Toronto Western Hospital and University of Toronto, Toronto, ON, Canada; [3]Division of Rheumatology, Department of Medicine and Department of Pathology, Queen Elizabeth II Health Sciences Centre and Dalhousie University, Halifax, NS, Canada; [4]Division of Rheumatology, University of Calgary, Calgary, AB, Canada; [5]Rheumatology Research Group, School of Immunity and Infection, College of Medical and Dental Sciences, University of Birmingham, Birmingham, UK; [6]Instituto Nacional de Ciencias Médicas y Nutrición, Mexico City, Mexico; [7]Department of Medicine, University of Alabama at Birmingham, Birmingham, AL, USA; [8]Department of Rheumatology, Hanyang University Hospital for Rheumatic Diseases, Seoul, Korea; [9]Division of Rheumatology, Johns Hopkins University School of Medicine, Baltimore, MD, USA; [10]Department of Clinical Pharmacology, Oklahoma Medical Research Foundation, Oklahoma City, OK, USA; [11]Cedars-Sinai/David Geffen School of Medicine at UCLA, Los Angeles, CA, USA; [12]Division of Rheumatology, Centre Hospitalier Universitaire de Québec et Université Laval, Quebec City, QC, Canada; [13]Centre for Rheumatology, Department of Medicine, University College London, UK; [14]Division of Rheumatology, University of Pittsburgh School of Medicine, Pittsburgh, PA, USA; [15]Department of Rheumatology, University Hospital Lund, Lund, Sweden; [16]University of Manitoba, Winnipeg, Manitoba, Canada; [17]Autoimmune Diseases Research Unit, Department of Internal Medicine, BioCruces Health Research Institute, Hospital Universitario Cruces, University of the Basque Country, Barakaldo, Spain; [18]Feinstein Institute for Medical Research, Manhasset, NY, USA; [19]Academic Medical Centre, Dept of Clinical Immunology and Rheumatology, Amsterdam; The Netherlands; [20]Lanarkshire Centre for Rheumatology, Hairmyres Hospital, East Kilbride, Scotland UK; [21]Center for Rheumatology Research, Landspitali University hospital, Reykjavik, Iceland; [22]Lupus Research Unit, The Rayne Institute, St Thomas' Hospital, King's College London School of Medicine, UK, London, UK; [23]Department of Medicine, SUNY Downstate Medical Centre, Brooklyn, NY, USA; [24]Hospital for Joint Diseases, NYU, Seligman Centre for Advanced Therapeutics, New York, NY USA; [25]UCSD School of Medicine, La Jolla, CA, USA; [26]Thurston Arthritis Research Centre, University of North Carolina, Chapel Hill, NC, USA; [27]Emory University School of Medicine, Division of Rheumatology, Atlanta, Georgia, USA; [28]Medical University of South Carolina, Charleston, South Carolina, USA; [29]Department of Rheumatology, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark; [30]Josep Font Autoimmune Diseases Laboratory, IDIBAPS, Department of Autoimmune Diseases, Hospital Clínic, Barcelona, Spain; [31]Division of Rheumatology, Department of Internal Medicine, Istanbul Medical Faculty, Istanbul University, Istanbul, Turkey; [32]Division of Clinical Epidemiology, McGill University Health Centre, Montreal, QC, Canada; [33]Northwestern University and Feinberg School of Medicine, Chicago, IL, USA

Background To describe cancer incidence in the largest inception SLE cohort in the world.

Materials and methods Patients meeting ACR criteria for new-onset SLE were enrolled across 32 centres. At enrolment and

annual assessments, new cancer diagnoses (in the intervening year) were recorded by the examining physician. Confirmation of cancers was done by reviewing medical files including pathology reports. Of 1848 patients enrolled (across 1999–2011), 1676 had at least one follow-up. Patients were followed until death, last visit, or end of study interval for this analysis (August 2015).

Results Of 1676 patients followed, the majority (88.7%) were female and 828 (49.4%) were Caucasian (16.5% black, 15.2% Asian, 15.2% Hispanic, 3.7% other). Average age at SLE diagnosis was 34.6 (standard deviation, SD 13.3) years. At baseline, 1085 (64.7%) patients were never-smokers; the remainder were current (n = 248) or ex-smokers (n = 342). Average follow-up from cohort entry was 6.9 (SD 3.6) years. Two patients had cancer (one squamous cell skin and one breast cancer) prior to their SLE diagnosis; these cancers were not included in our analyses.

We observed 46 cancers in 46 subjects (with three other subjects reported to have cervical intraepithelial neoplasia, a premalignant condition). At cancer diagnosis, the average age was 51.7 (SD 15.3) years and the average SLE duration was 4.8 (SD 3.1) years. The most common cancer type was breast (n = 9), followed by non-melanoma skin cancer (n = 8, six of which were basal cell), lung (n = 6), prostate (n = 5), four head and neck (tonsillar, tongue, and two oral), cervical (n = 2), thyroid (n = 2), melanoma (n = 2) and one each of Non-Hodgkin lymphoma, leukaemia, multiple myeloma, meduloblastoma brain cancer, renal carcinoma, gastric carcinoid, thymoma, and cutaneous dermatofibrosarcoma. Most of the cancer cases were female (34 cases, 73.9%) and Caucasian (34 cases, 73.9%). Four cancer cases were Hispanic, 4 were black, and 4 were Asian. Twenty of the 46 patients (43.5%) who developed cancers were current (n = 4) or ex-smokers (n = 16); five of the six lung cancers were current (n = 1) or ex-smokers (n = 4).

Conclusions Just under 3% of the incident SLE cohort developed a cancer over an average follow-up of 6.9 years. The most common cancers were breast, non-melanoma skin, and lung cancers. The vast majority of lung cancers were smokers, supporting the belief that lung cancer risk in SLE (as in the general population) is largely driven by smoking. Further analyses will determine the standardised incidence rates for these cancers in SLE, versus the general population.

CE-23   **EPIDEMIOLOGICALASPECTS AND DRUGS USED IN A COHORT OF CHILEAN SYSTEMIC LUPUS ERYTHEMATOSUS PATIENTS**

[1,2]Óscar Neira*, [3]Luis Muñoz, [1,4]Juan Maya, [1,5]Cristóbal Miño. [1]Rheumatology Unit. Hospital del Salvador, Facultad de Medicina, Universidad de Chile; [2]Rheumatology Unit, Clínica Alemana, Facultad de Medicina Clínica Alemana-UDD; [3]Pharmacyst. Hospital del Salvador; [4]Rheumatology Fellow; [5]Internal Medicine Fellow. Santiago, Chile

Background Systemic lupus erythematosus (SLE) is a chronic autoimmune disease with unknown aetiology and a broad clinical expression. One important problem in the management of SLE is the access, and the adherence to drugs, especially in developing countries.

Materials and methods The national public health system (SNSS) covered the health for 73.2% of the Chilean population. Some diseases have been included in a special program of Health Specific Guarantees (GES), in order to assure full access to drugs. SLE was included in this program in 2013 and brings us the

Abstract CE-23 Table 1 Frequency of use and average dose of the different SLE medications

	Frequency of use (%)	Average dose
	(%)	Dose
Prednisolone	82.1	6.8 mg/day
Hydroxychloroquine	86	233 mg/day
Azathioprine	25.5.	91.6 mg/day
Mycophenolate	21.2	1.750 mg/day
Methotrexate	14	15.8 mg/week
Cyclophosphamide	0.9	90 mg/day
Aspirin	43.2	100 mg/day
Calcium plus	97.4	933 mg/day
Vitamin D		1.493 IU/day

opportunity, by first time, to know the number of our patients. The pharmacy of our hospital has detailed registry of the outpatient prescribed and dispatched medication on SLE patients.

The objectives are to describe the national prevalence and annual incidence of SLE patient in SNSS system. To describe the SLE drugs prescription profile in our hospital.

Results At the end of 2015 a total of 6.714 SLE patient had been registered in the SNSS GES system, 6.257 (93.2%) of them are women's. For this population the SLE prevalence is 50.7/100,000, and the annual incidence is 9.2/100,000.

In our hospital at the end of 2015 there were 463 SLE GES patients. During 2015, 33.7% of them refilled medication at 12 month, and 32.4% got only 6 or less refills.

The frequency of use and average dose of the different SLE medications on this group of patients is listed on Table 1.

Conclusions We communicate prevalence and incidence rates for Chilean SLE patients similar to those reported elsewhere. A 66.3% of patients refill less medication that prescribed. The 82% are on low dose of prednisolone, 86% are on antimalarial and a 62% are on immunosuppressive drugs.

CE-24   **COMPARISON OF SYSTEMIC LUPUS ERYTHEMATOSUS IN 3 DIFFERENT ASIAN ETHNIC GROUPS: RESULTS FROM THE 1000 CANADIAN FACES OF LUPUS COHORT**

[1]Mai Nguyen [2]Paul R Fortin, [3]Earl Silverman, [4]Janet Pope, [5]Gaelle Chedeville, [6]Adam Huber, [7]Sasha Bernatsky, [8]Ann Clarke, [7]Christian Pineau, [7]Marie Hudson, [9]Hector Arbillaga, [10]Lori Tucker, [3]Deborah Levy, [11]C Douglas Smith, [1]Carol Hitchon, [12]Michel Zummer, [1]**Christine A Peschken***. [1]Department of Medicine, University of Manitoba, Canada; [2]Department of Medicine, CHU de Québec, Université Laval, Canada; [3]Department of Paediatrics, Hosptial for Sick Children, University of Toronto, Canada; [4]Department of Medicine, University of Western Ontario, Canada; [5]Department of Paediatrics, McGill University, Canada; [6]Department of Paediatrics, IWK Health Centre, Halifax, Dalhousie University, Canada; [7]Department of Medicine, McGill University, Canada; [8]University of Calgary, Canada; [9]Calgary, Canada; [10]Department of Paediatrics, University of British Columbia, Canada; [11]Department of Medicine, The University of Ottawa, Canada; [12]Département de Médecine, Université de Montréal, Canada

Background Systemic lupus erythematosus (SLE) is more prevalent and severe in non-Caucasians including Asians. However, Asian ethnicity includes broad geographic, cultural, and genetic diversity. There is limited data examining SLE among North American Asian ethnicities. We describe SLE in 3 Asian subgroups from a large SLE cohort.